THIS DOCUMENT CONSISTS OF 236 PAGES
NO. 2 OF 4 COPIES, SERIES A

[redacted]

UNCLASSIFIED

CLASSIFICATION CANCELLED
OR CHANGED TO
BY AUTHORITY OF DOE/DPC
JOHN K. HARRISON DATE
REVIEWED BY Richard R. Dolan 10-25-2005
O.O. 50-10.23

[redacted] RD

APPENDIX A

MAPS, DRAWINGS, PHOTOGRAPHS, AND DESCRIPTIONS

RESTRICTED DATA
This document contains restricted data as defined in the Atomic Energy Act of 1946.

CLASSIFICATION CANCELLED
OR CHANGED TO Conf. R.D.
BY AUTHORITY OF Memo J.B. Kahn 3-4-59
BY E. Cameron DATE 3-10-59

[redacted] RD

[redacted]

P3236

[redacted]

MANHATTAN DISTRICT HISTORY

BOOK IV - PILE PROJECT

VOLUME 5 - CONSTRUCTION

APPENDIX A

MAPS, DRAWINGS, PHOTOGRAPHS, AND DESCRIPTIONS

[redacted]

No.	Description
1	Map - Vicinity Map
2	Map - Site Map
3	Map - Regional Activities (Recruitment)
4	Map - Hanford Camp Layout
5	Map - Auxiliary Construction Camp (3000 Area) Layout
6	Map - Central Shops Layout
7	Map - Road Map - Hanford Engineer Works
8	Map - White Bluffs and Vicinity
9	Map - Benton County, Washington
10	Map - Layout of Temporary Construction Facilities - Pile (100-B) Area
11	Map - Layout of Temporary Construction Facilities - Pile (100-D) Area
12	Map - Layout of Temporary Construction Facilities - Pile (100-F) Area
13	Map - Layout of Temporary Construction Facilities - Separation (200-E) Area
14	Map - Layout of Temporary Construction Facilities - Separation (200-W) Area
15	Map - Layout of Temporary Construction Facilities - Metal Fabrication and Testing (300) Area
16	Map - Real Estate - Hanford Engineer Works
17	Map - Metal Fabrication and Testing (300) Area Layout
18	Map - Coordinate Systems - Hanford Engineer Works
19	Map - Pile (100-B) Area Layout
20	Map - Pile (100-D) Area Layout
21	Map - Pile (100-F) Area Layout
22	Map - Separation (200-E) Area Layout
23	Map - Separation (200-W) Area Layout
24	Map - Separation (200-N) Area Layout
25	Map - Layout of Service Lines
26	Map - Richland Village Layout
27	Map - Administration (700) Area
28	Map - Proposed Railroad Connection
29	Diagram - Pile Shielding
30	Diagram - Sectional View of Pile from Top
31	Diagram - Sectional View of Pile from Control Rod Side

[redacted]

[redacted]

No.	Description
32	Diagram - Inlet and Outlet Water Fittings
33	Diagram - Sectional View of Pile from Discharge End
34	Photo - Aerial View of Hanford Camp
35	Photo - Aerial View of Men's and Women's Barracks
36	Photo - Aerial View of Hutments
37	Photo - Aerial View of Hanford Trailer Camp
38	Photo - Typical Trailer Canopy
39	Photo - Typical Trailer Camp Bathhouse
40	Photo - Typical Trailer Camp Playground
41	Photo - Typical Mess Hall
42	Photo - Laundry, Pressing, Garment Alterations, and Ladies Ready-to-Wear Shop
43	Photo - Western Union Office
44	Photo - Men's Clothing Store
45	Photo - Optometrist Shop
46	Photo - Jewelry Shop
47	Photo - Sears Roebuck Store
48	Photo - Shoe Repair Shop
49	Photo - Hanford Garage
50	Photo - Combined Stores Building (Group No. 2)
51	Photo - Service Stations
52	Photo - Hanford Bank
53	Photo - Hanford Theatre
54	Photo - Valley Theatre
55	Photo - Commissary Building (No. 4)
56	Photo - Auditorium and Gymnasium
57	Photo - Hanford Grade School
58	Photo - Hanford Day Nursery
59	Photo - Hanford Administration Building and Hospital
60	Photo - Public Health and Infirmary Building
61	Photo - United Protestant Church
62	Photo - Catholic Church Tent
63	Photo - Fire Station
64	Photo - Patrol Headquarters
65	Photo - Hanford Library
66	Photo - Aerial View of 3000 Area
67	Photo - Central Shops
68	Photo - Graphite Shop
69	Photo - White Bluffs Concrete Pipe Shop
70	Photo - White Bluffs Fabrication Shop
71	Photo - Concrete Plant
72	Photo - Aggregate Plant (Haven)
73	Photo - Hanford Bituminous Walk
74	Photo - Riverland Yards
75	Photo - Little Pasco Camp
76	Photo - Family Type (Tract) House
77	Photo - Bachelor Quarters (Tract House)
78	Photo - Hanford Airport

[redacted]

No.	Description
79	Photo - Metal Fabrication and Testing (300) Area
80	Photo - Pile Building (305)
81	Photo - Metal Fabrication Building (313)
82	Photo - Press Building (314)
83	Photo - Separation Building (321)
84	Photo - Laboratory (3706)
85	Photo - Aerial View of Pile (100-D) Area
86	Photo - River Pump House (181)
87	Photo - Reservoir and Pump House (182)
88	Photo - Filter Plant (183-D)
89	Photo - Demineralisation Plant (186-D)
90	Photo - Deaeration (185), Refrigeration (189), Process Pump (190) Buildings
91	Photo - Helium Purification Building (115-F)
92	Photo - Retention Basin
93	Photo - Power House (184-D)
94	Photo - Aerial View of Pile (100-D) Area (6/20/44)
95	Photo - Aerial View of Pile (100-F) Area (9/27/44)
96	Photo - Aerial View of Pile (100-B) Area (8/20/44)
97	Photo - Aerial View of Pile (100-B) Area (9/25/44)
98	Photo - Construction of River Pump House (181-D) Building (3/9/44)
99	Photo - Construction of Pile (105-F) Building (6/20/44)
100	Photo - Construction of Pile (105-D) Building (3/10/44)
101	Photo - Construction of Pile (105-D) Building (4/21/44)
102	Photo - Completed Pile (105-D) Building (11/24/44)
103	Photo - Graphite Laying in Pile (105) Building
104	Photo - Pile (105) Building Air-Lock
105	Photo - Aerial View of Separation (200-E) Area (9/25/44)
106	Photo - Lag Storage Building (212)
107	Photo - Concentration Building (224)
108	Photo - Exhauster Building and Stack (291)
109	Photo - Isolation Building (231-#)
110	Photo - Magazine Storage Buildings (213 J & K)
111	Photo - Construction of Separation (221-B) Building (6/24/44)
112	Photo - Construction of Separation (221-B) Building (7/17/44)
113	Photo - Construction of Separation (221-T) Building (3/21/44)
114	Photo - Construction of Separation (221-U) Building (8/17/44)
115	Photo - Construction of Separation (221-T) Building (5/3/44)
116	Photo - Construction of Separation (221-B) Building (12/22/44)
117	Photo - Completed Separation Building (221-T) (9/27/44)
118	Photo - Foundations for Waste Process Disposal Tanks (241-T) (3/21/44)
119	Photo - Construction of Waste Process Disposal Tanks (241-C) (8/1/44)
120	Photo - Construction of Waste Process Disposal Tanks (241-B) (7/7/44)
121	Photo - Construction of Waste Process Disposal Tanks (241-B) (9/25/44)

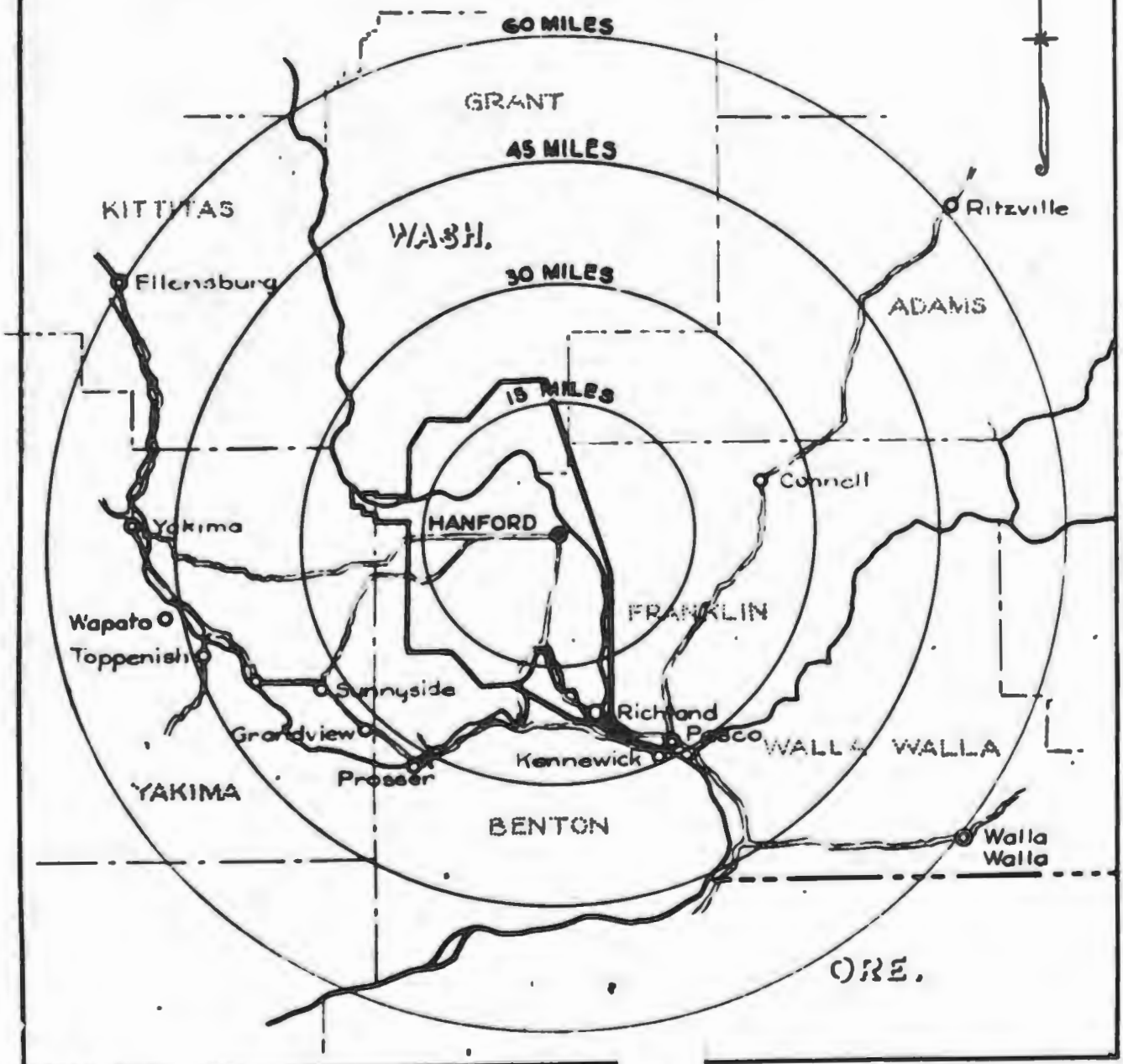
No.	Description
122	Photo - Construction of Waste Process Disposal Tanks (241-C) (11/20/44)
123	Photo - Construction of Waste Process Disposal Tanks (241-C) (12/7/44)
124	Photo - Completed Waste Process Disposal Tanks (241-T) (11/9/44)
125	Photo - Midway Substation
126	Photo - Primary Substation
127	Photo - Typical Distribution Substation
128	Photo - 115 kv Transmission Line
129	Photo - 13.8 kv Transmission Line
130	Photo - White Bluffs-Cold Creek Road
131	Photo - Aerial View of Richland Village
132	Photo - Aerial View of Administration (700) Area

[redacted]

VICINITY MAP

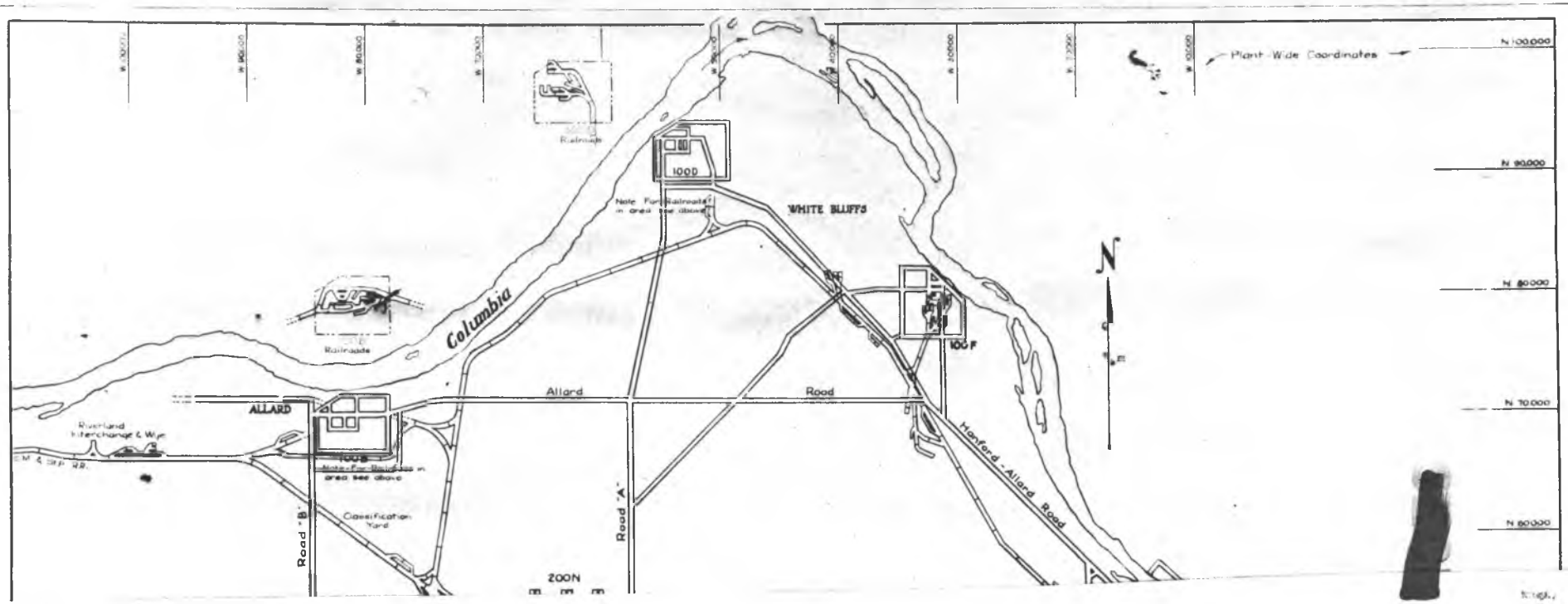
HANFORD ENGINEER WORKS

PROJECT 9536



[redacted]

A1

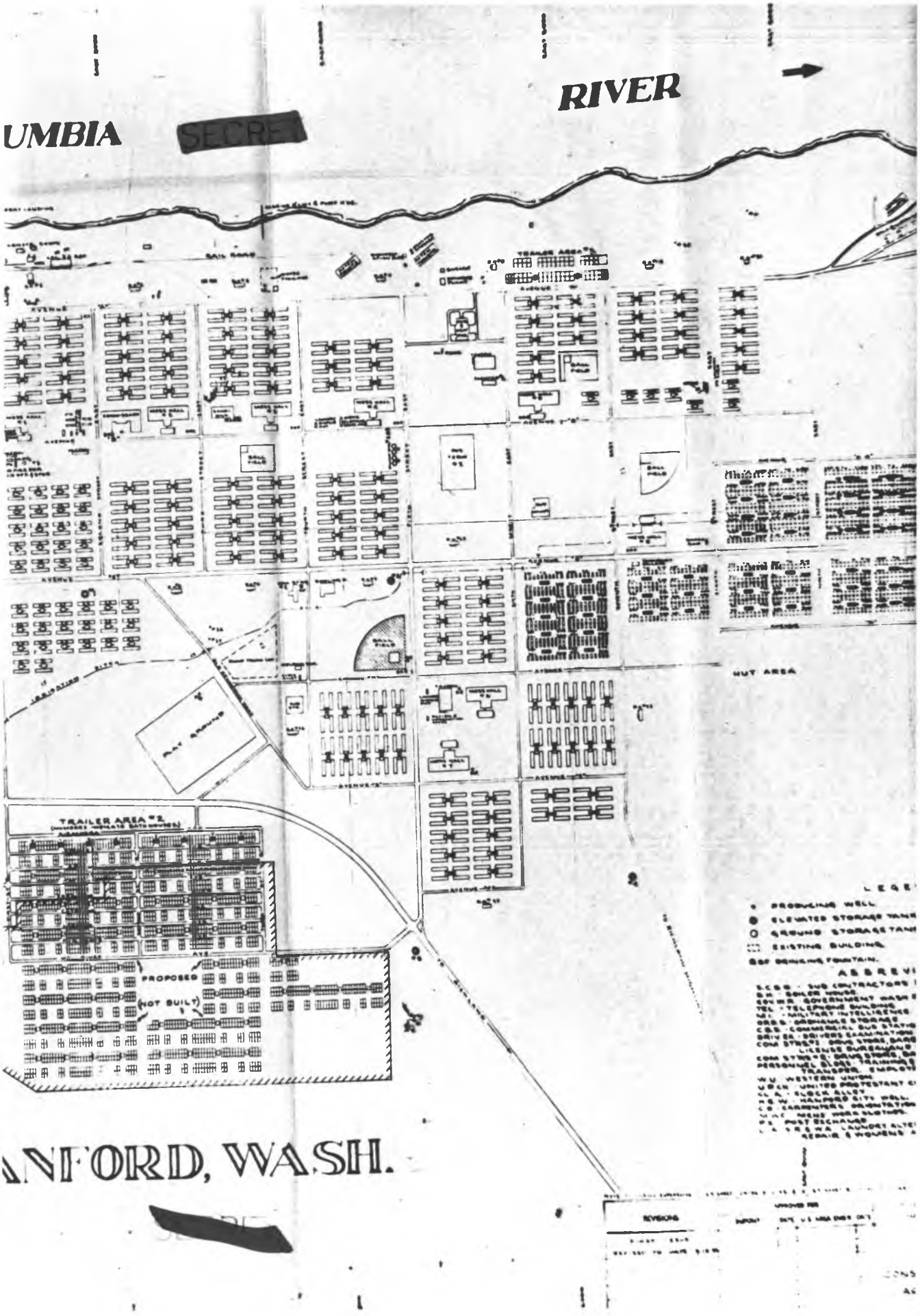

Plant-Wide Coordinates
N 100,000
N 90,000
N 80,000
N 70,000
N 60,000
1000
WHITE BLUFFS
Columbia
Railroads
100F
Allard
Road
ALLARD
Riverland
Interchange & Wye
100B
Classification
Yard
Road "B"
Road "A"
Hanford - Allard Road
200N

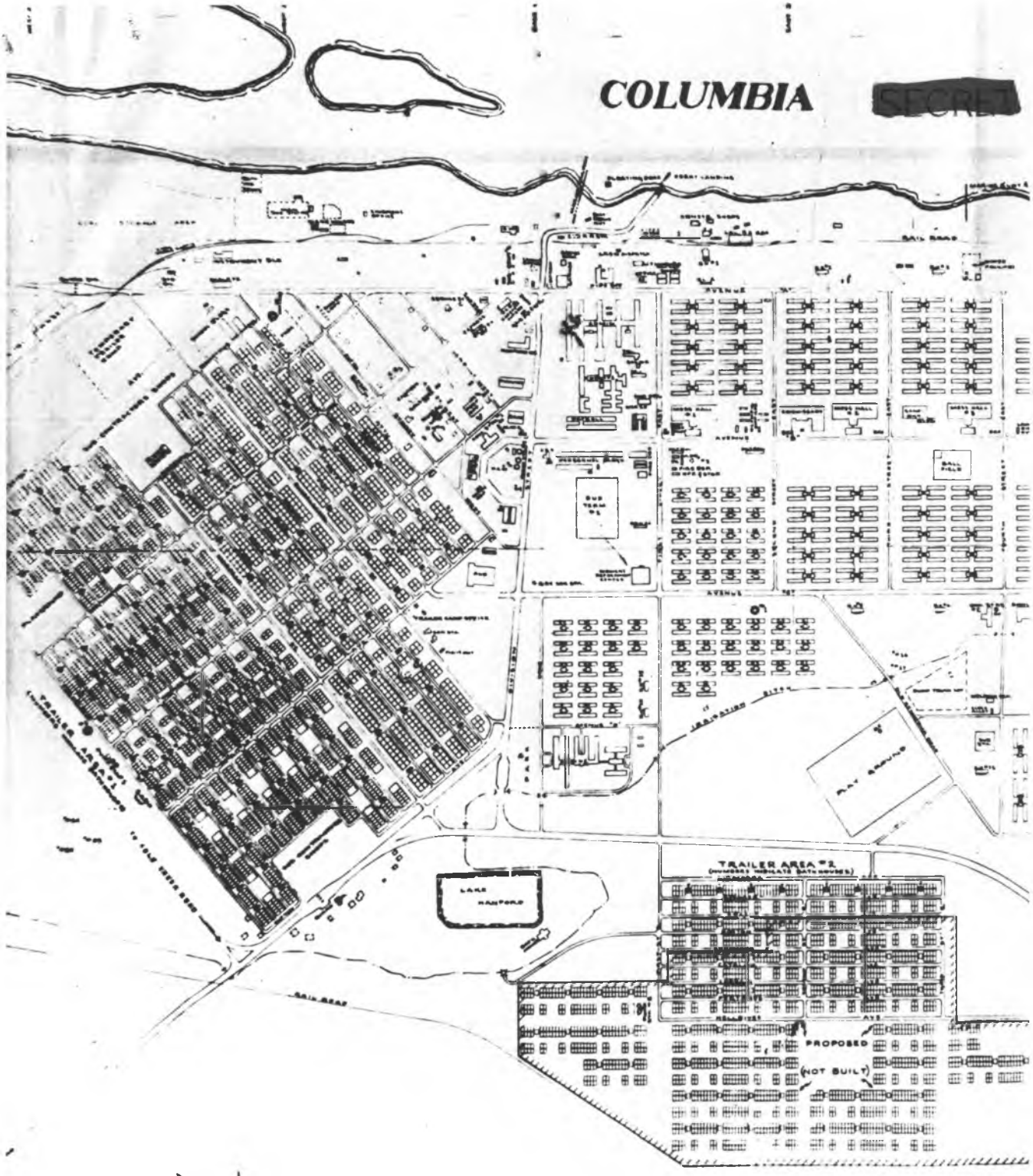
A2

REGIONAL ACTIVITIES

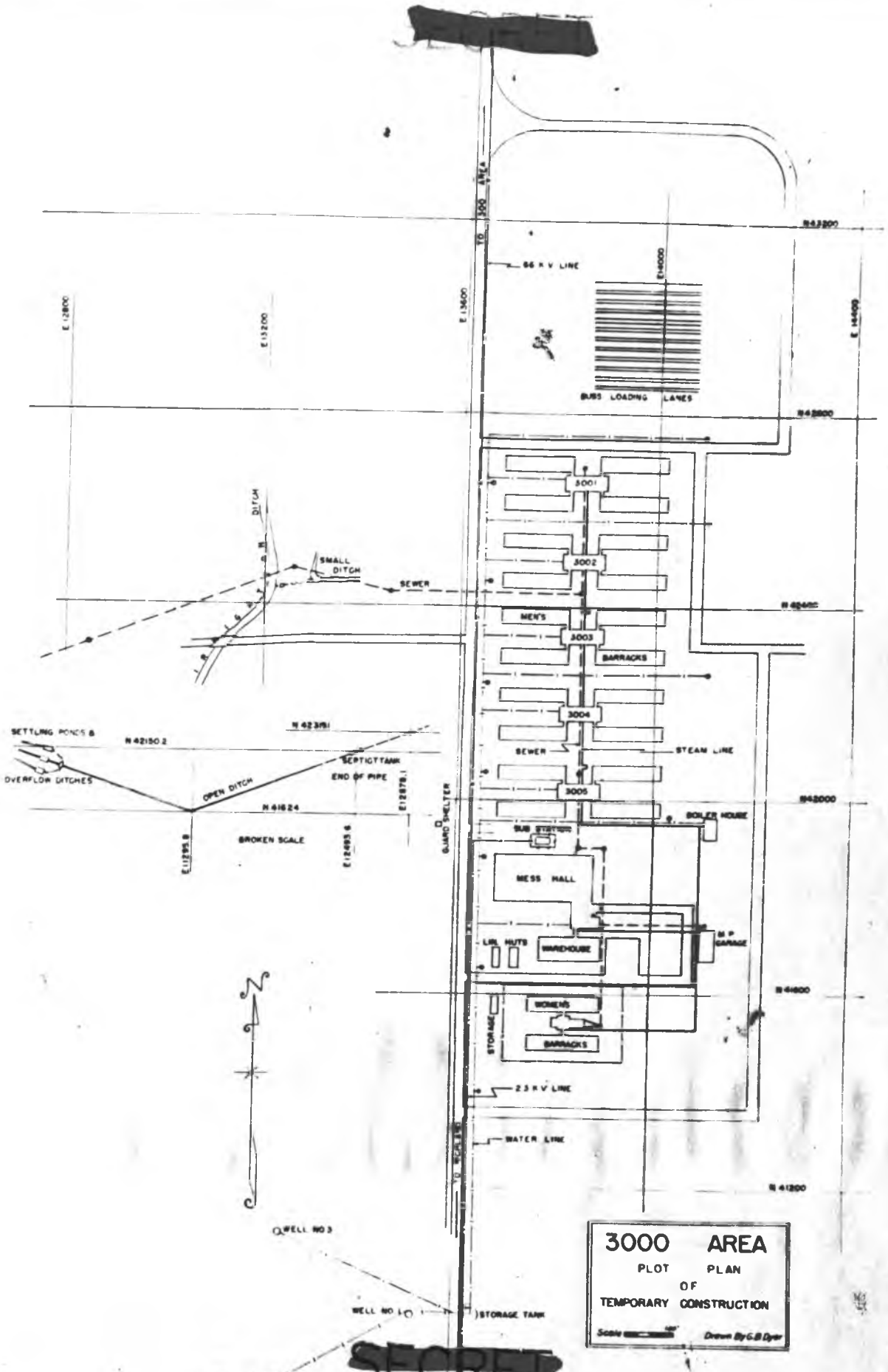
• RECRUITMENT •

A3


RIVER
UMBIA
SECRE
HUT AREA
PLAY GROUND
TRAILER AREA #2
PROPOSED
(NOT BUILT)
ANFORD, WASH.

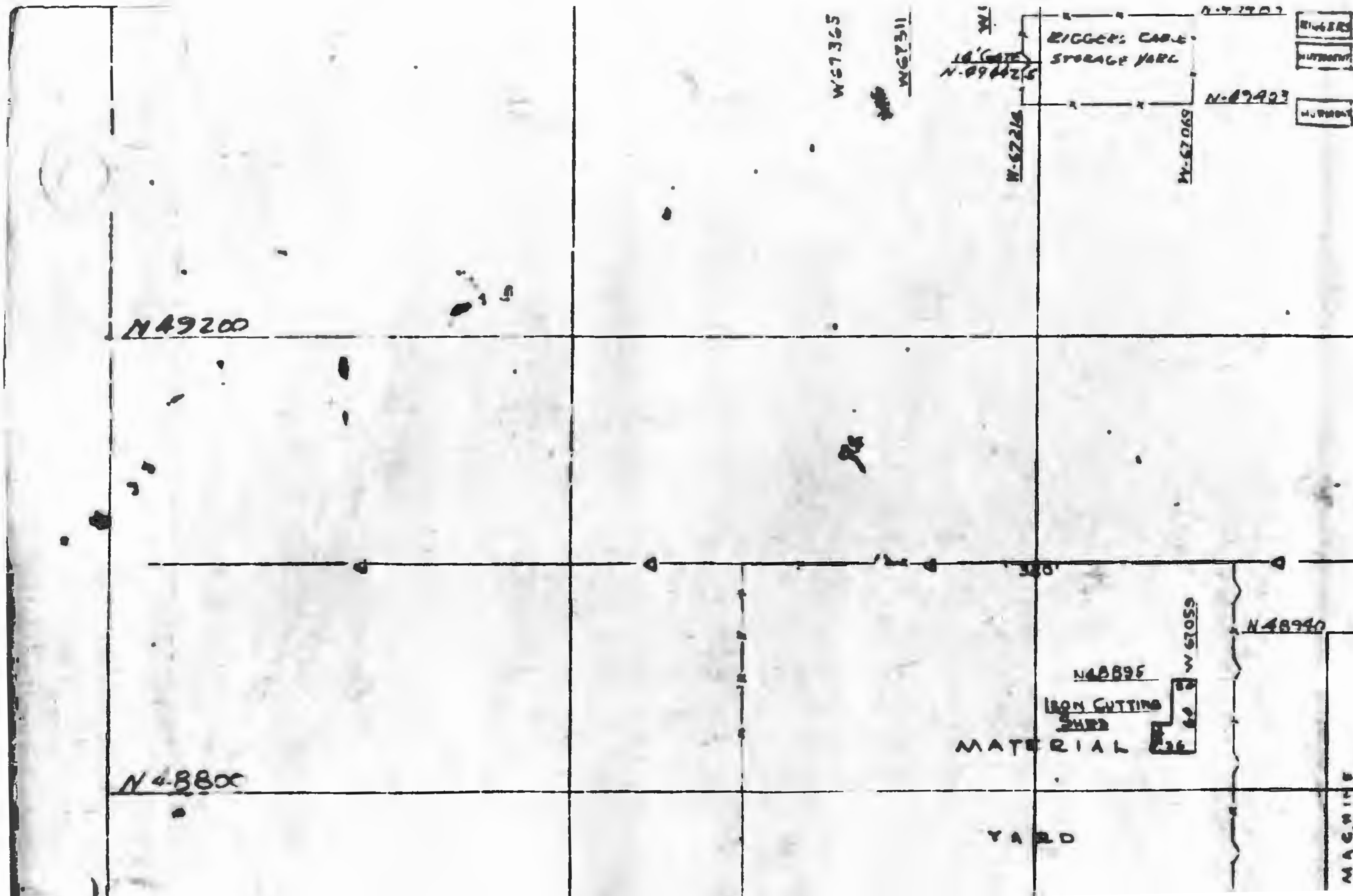

COLUMBIA
[redacted]
TRAILER AREA No. 2
LAKE HANFORD
PROPOSED
(NOT BUILT)
HANFORD, WAS
[redacted]

[redacted]

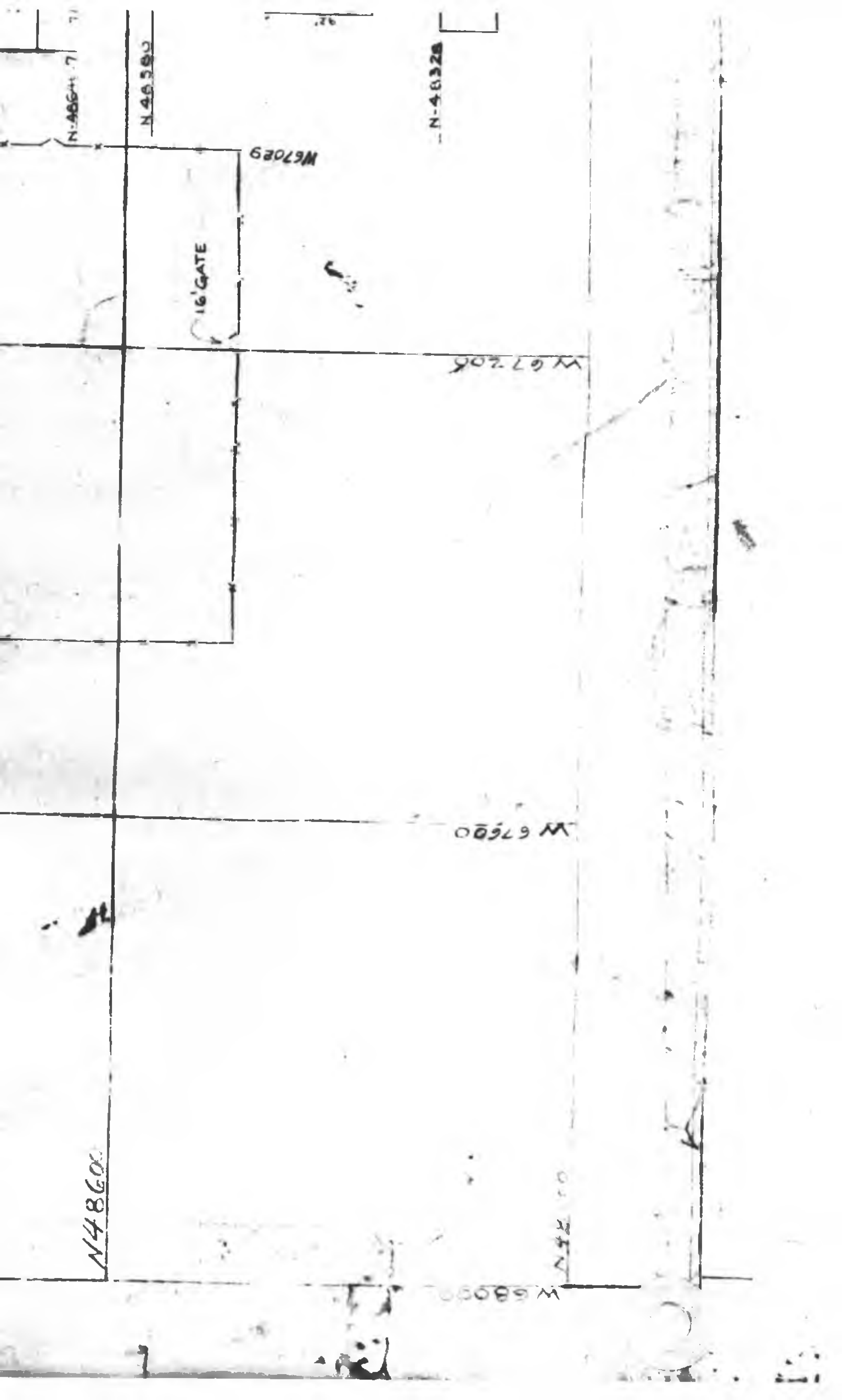


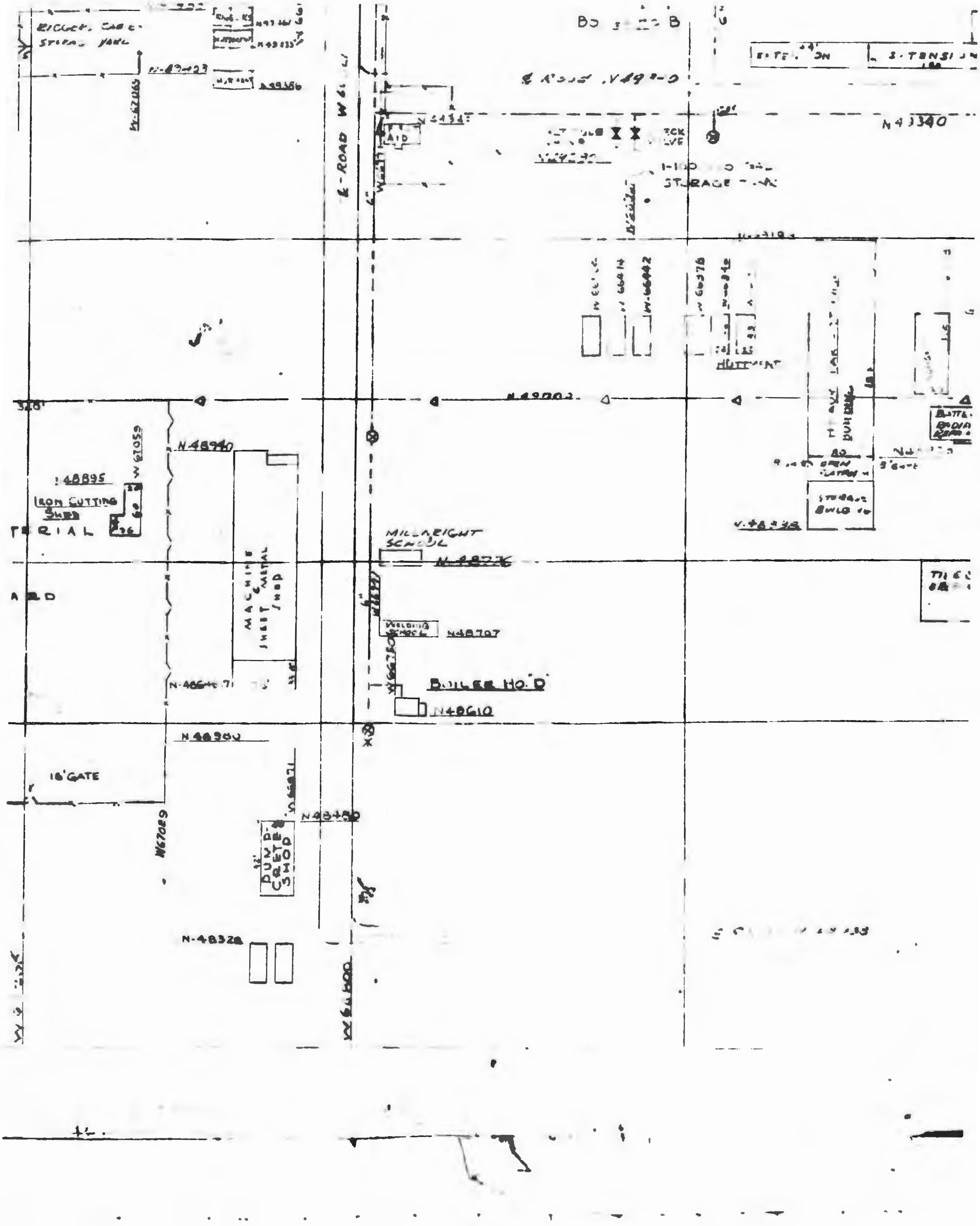
[redacted]

A5

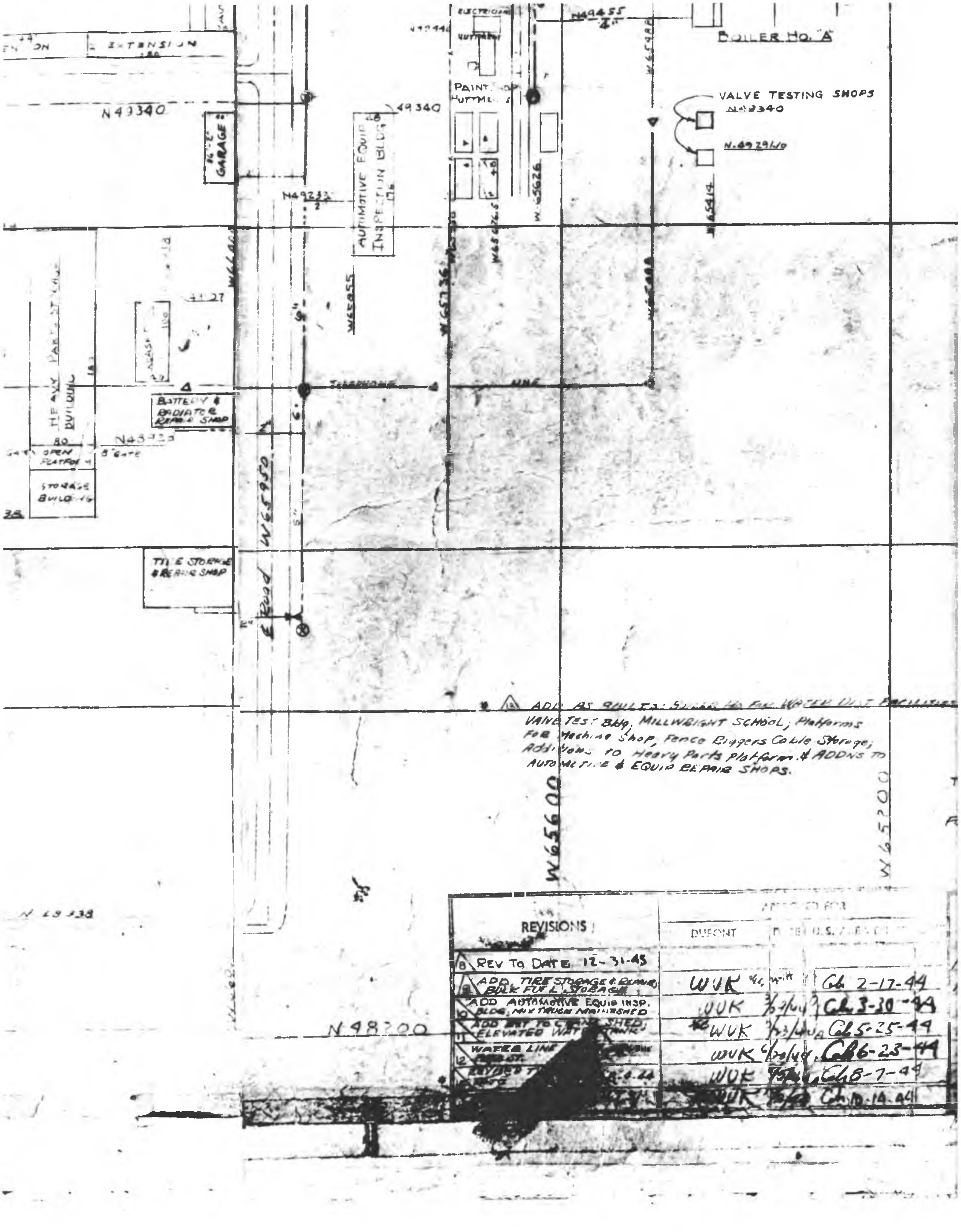


RIGGER'S CABLE STORAGE YARD
N-49423
W-67069
W-67216
14' GATE
W67365
W67311
N49200
N4880
N48940
W67055
N48895
IRON CUTTING SHED
MATERIAL
YARD

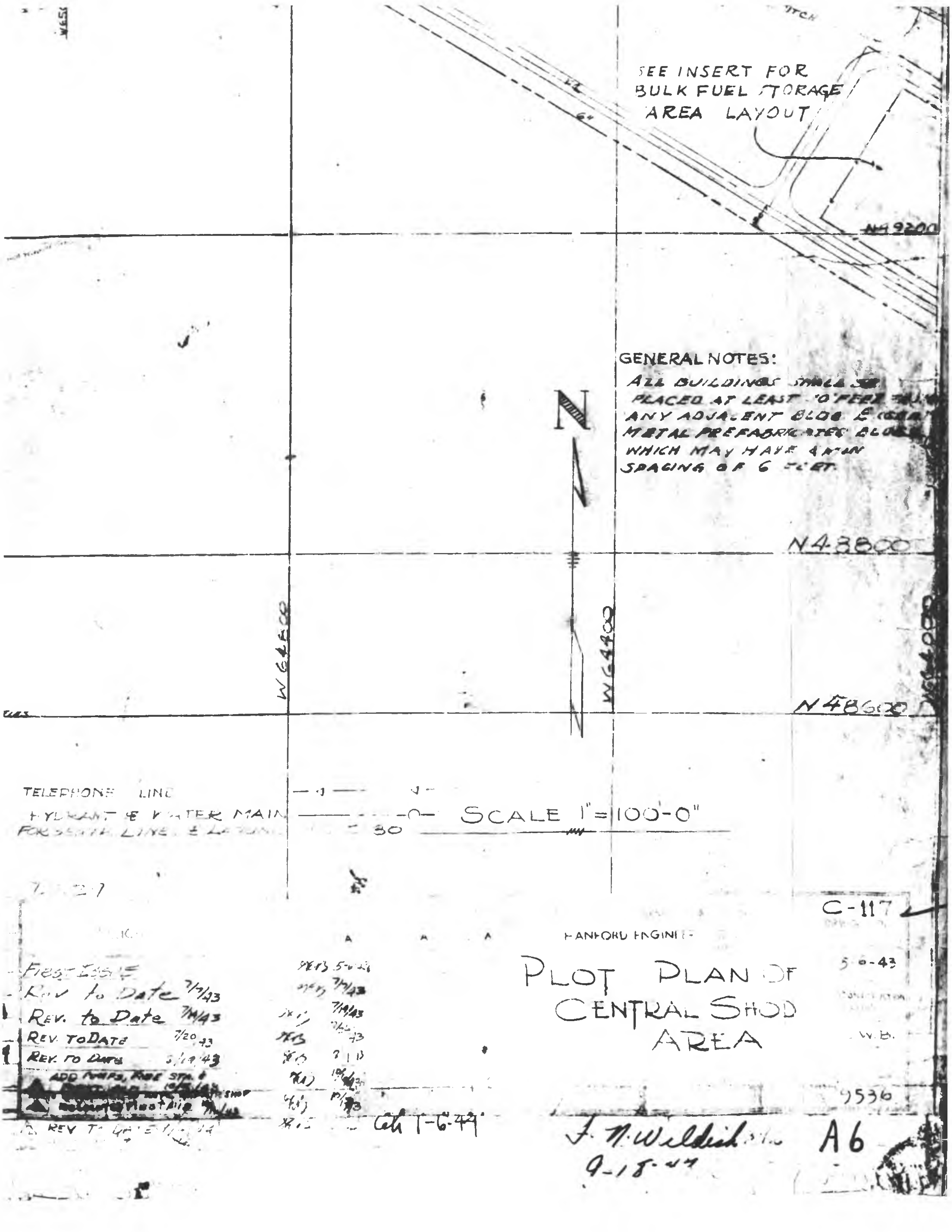

N-48580
N-48328
W67089
16'GATE
W67206

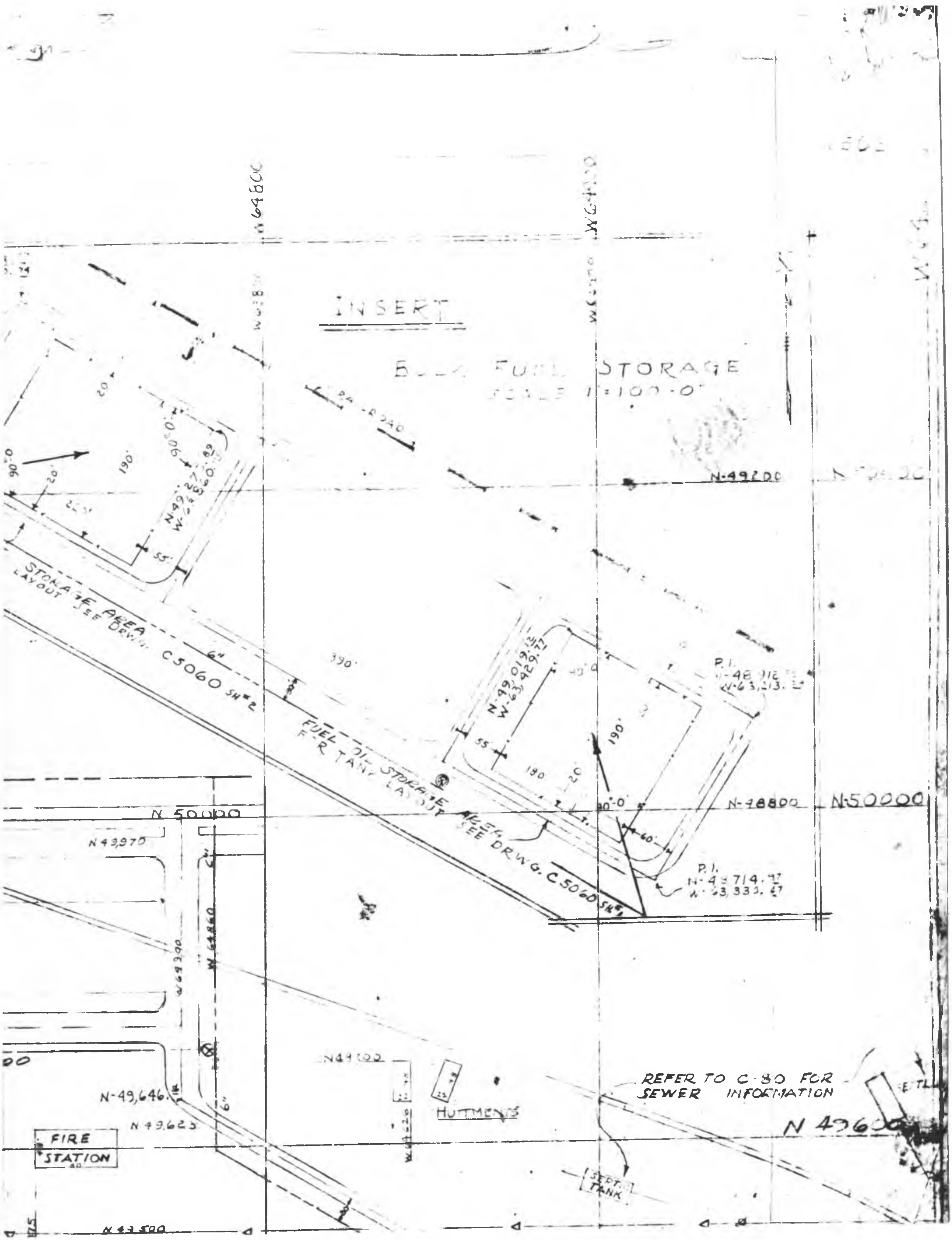


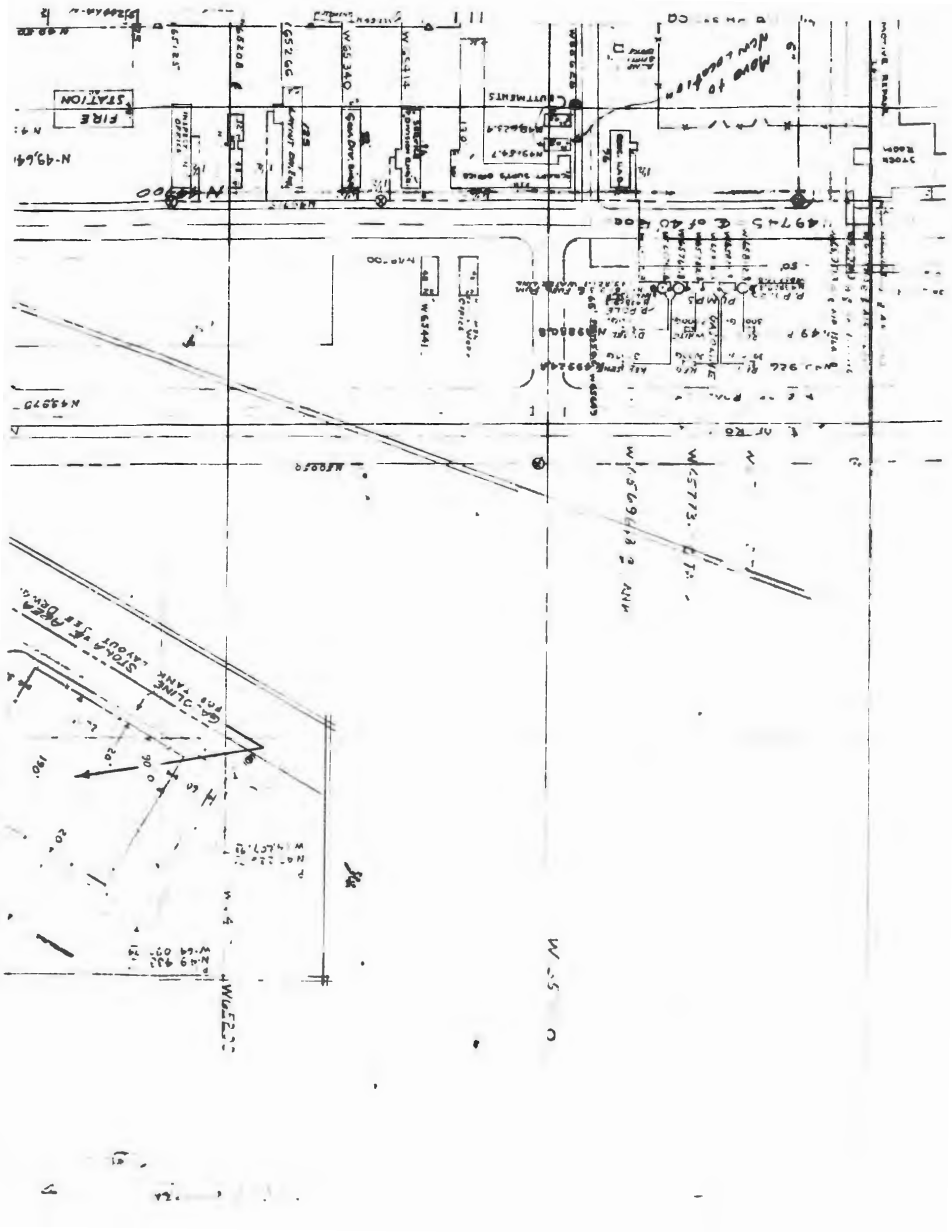
E-ROAD W
N 49340
AID
STORAGE
HUTMENT
N 49002
N-48940
N 48895
IRON CUTTING SHED
MILLRIGHT SCHOOL
MACHINE & SHEET METAL SHOP
WELDING SCHOOL
N48707
N48610
16'GATE
W67029
N-48328

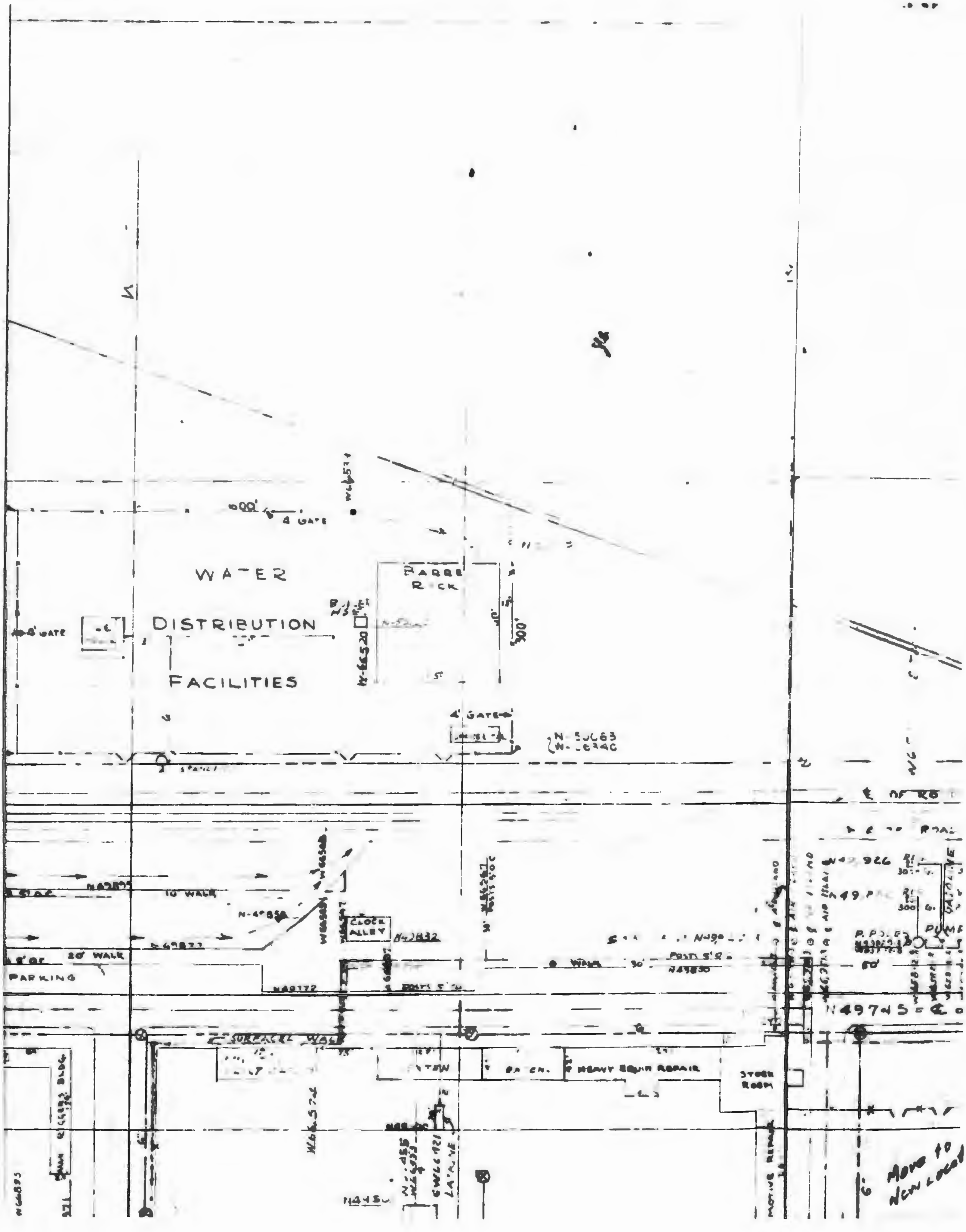


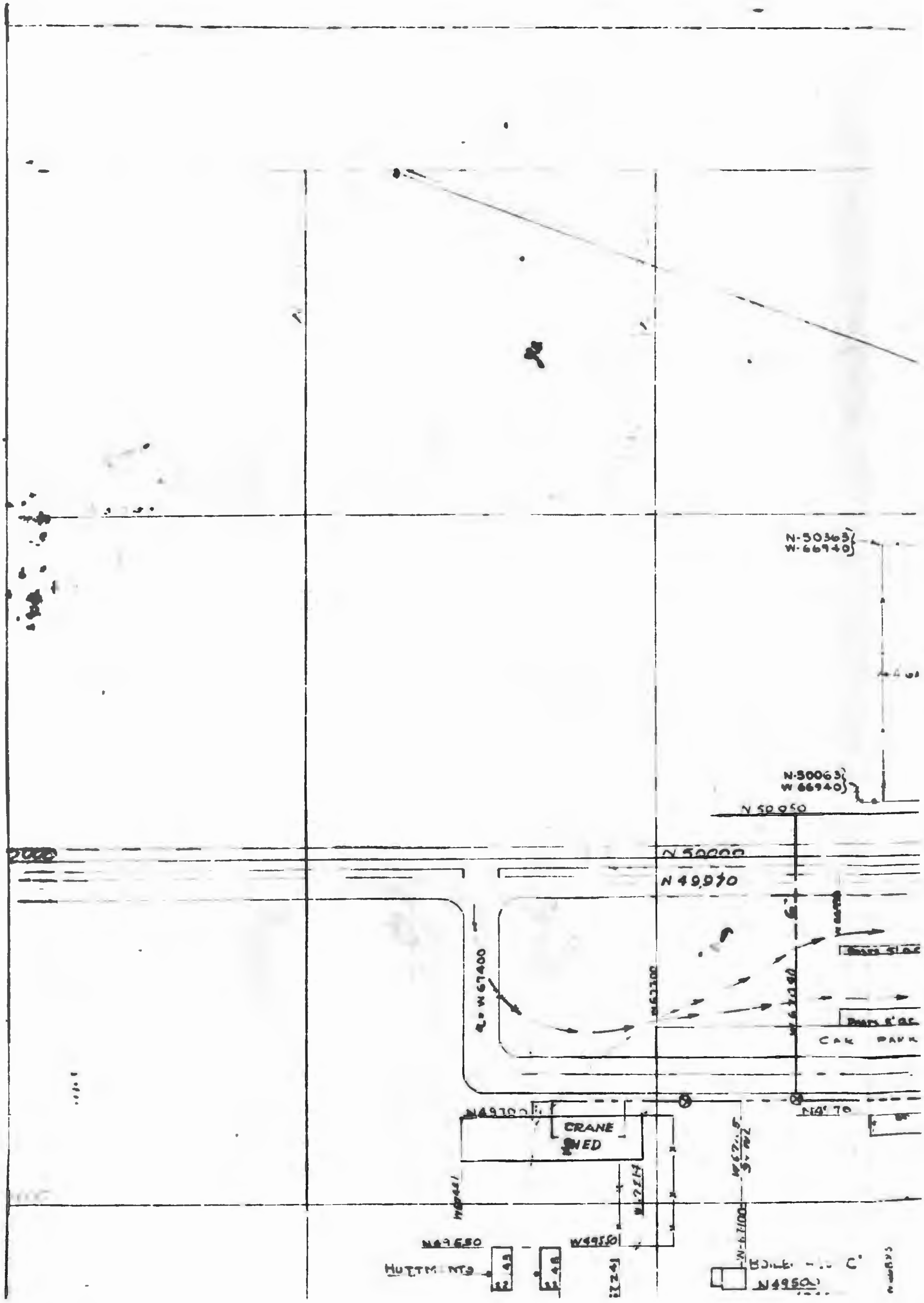
EXTENSION
BOILER HO. "A"
N49340
ELECTRICIAN
PAINT SHOP
VALVE TESTING SHOPS
N49340
N.4929½
GARAGE
AUTOMOTIVE EQUIP INSPECTION BLDG
N49233
W65626
W65414
W65855
HEAVY PARTS STORAGE BUILDING
BATTERY & RADIATOR REPAIR SHOP
OPEN PLATFORM
8' GATE
STORAGE BUILDING
W65950
TIRE STORAGE & REPAIR SHOP
Road
ADD AS BUILTS: VALVE TEST Bldg, MILLWRIGHT SCHOOL; Platforms FOR Machine Shop, Fence Riggers Cable Storage; Additions to Heavy Parts platform & ADDNS TO AUTOMOTIVE & EQUIP REPAIR SHOPS.
W65600
W65200
N48200
REVISIONS
APPROVED FOR
DUPONT
U.S. ARMY
8 REV TO DATE 12-31-43
9 ADD TIRE STORAGE & REPAIR, BULK FUEL STORAGE — WVK — Cb 2-17-44
10 ADD AUTOMOTIVE EQUIP INSP. BLDG, MIX TRUCK MAINTENANCE — WVK — Cb 3-30-44
11 ADD ... ELEVATED WATER TANK — WVK — Cb 5-25-44
12 WATER LINE — WVK — Cb 6-23-44
WVK — Cb 8-7-44
WVK — Cb 10-14-44

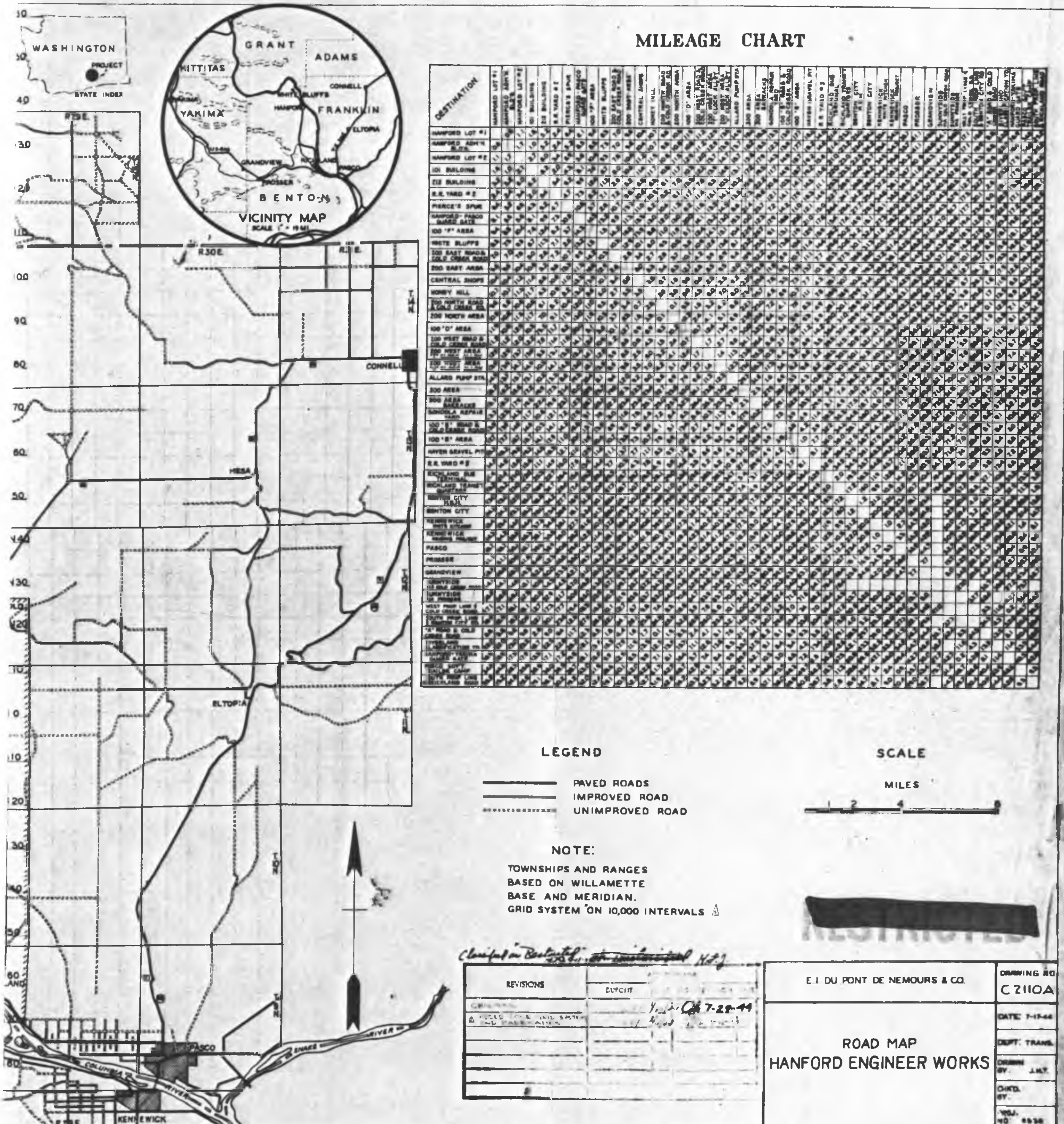

SEE INSERT FOR
BULK FUEL STORAGE
AREA LAYOUT
N49200
GENERAL NOTES:
ALL BUILDINGS SHALL BE
PLACED AT LEAST
ANY ADJACENT BLDG
METAL PREFABRICATED BLDG
WHICH MAY HAVE
SPACING OF 6
N
N48800
N48600
W64400
TELEPHONE LINE
HYDRANT & WATER MAIN
SCALE 1"=100'-0"
C-117
HANFORD ENGINE
PLOT PLAN OF
CENTRAL SHOP
AREA
5-6-43
FIRST ISSUE
Rev to Date 7/9/43
REV. to Date 7/14/43
REV. TO DATE 7/20/43
REV. TO DATE
ADD PUMPS
9536
A6
9-18-44


INSERT
BULK FUEL STORAGE
STORAGE AREA LAYOUT SEE DRWG. C5060 SH#2
FUEL OIL STORAGE AREA FOR TANK LAYOUT SEE DRWG. C5060 SH#1
N-49200
N-48800
N-50000
N 50000
N 49,970
N-49,646
N 49,625
N 49,500
N 49600
P.I.
REFER TO C-80 FOR SEWER INFORMATION
HUTTMENTS
FIRE STATION
SEPTIC TANK


FIRE STATION
STORAGE TANK LAYOUT
GAS LINE

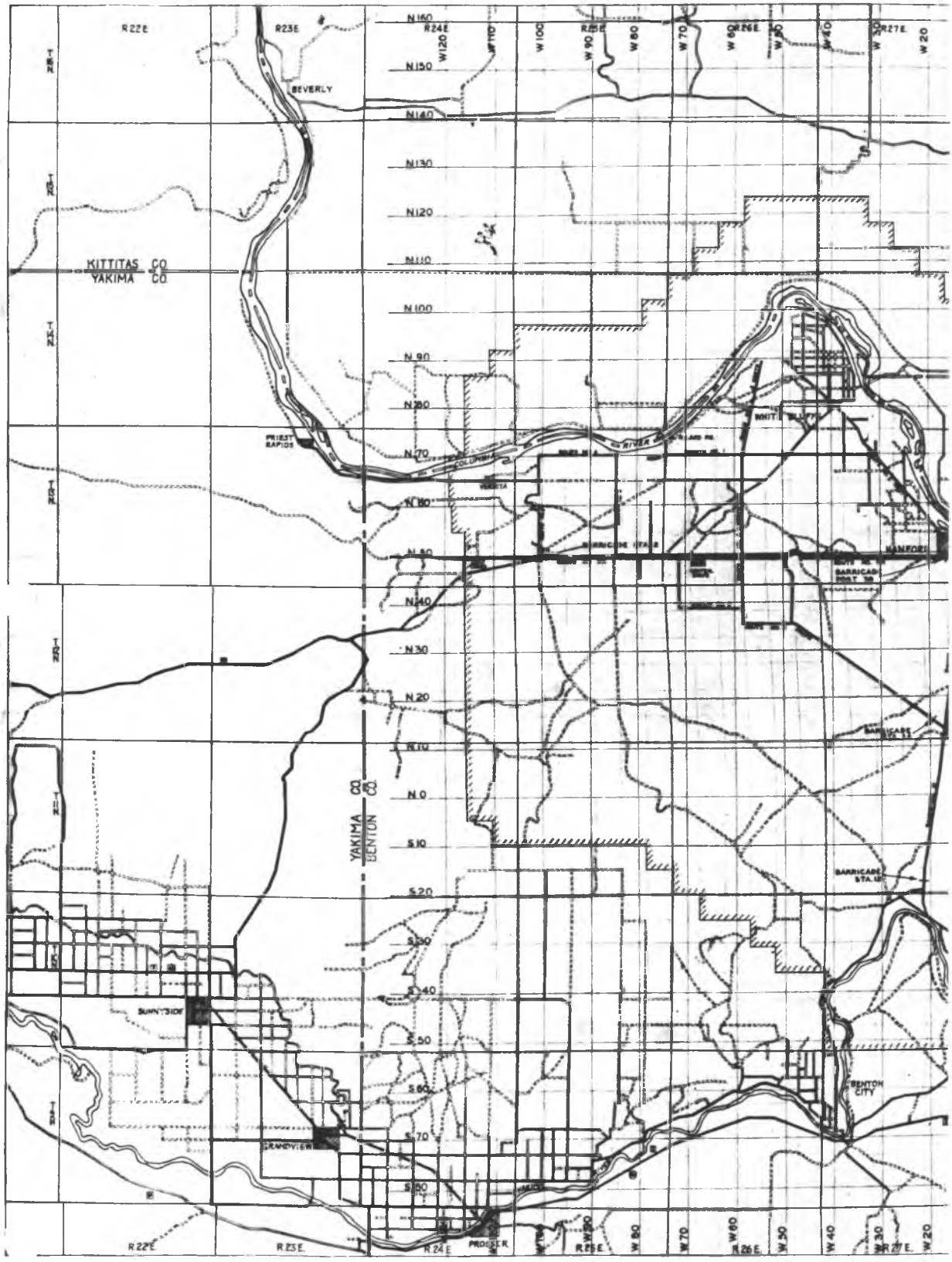

WATER
DISTRIBUTION
FACILITIES
4' GATE
300'
CLOCK ALLEY
20' WALK
PARKING
TO WALK
HEAVY EQUIP REPAIR
STOCK ROOM
N4974S
Move to
New Locat


N-50363
W-66940
N-50063
W 66940
N 50050
N 50000
N 49,970
W 67400
CRANE
SHED
CAR PARK
N49650
HUTTMENTS

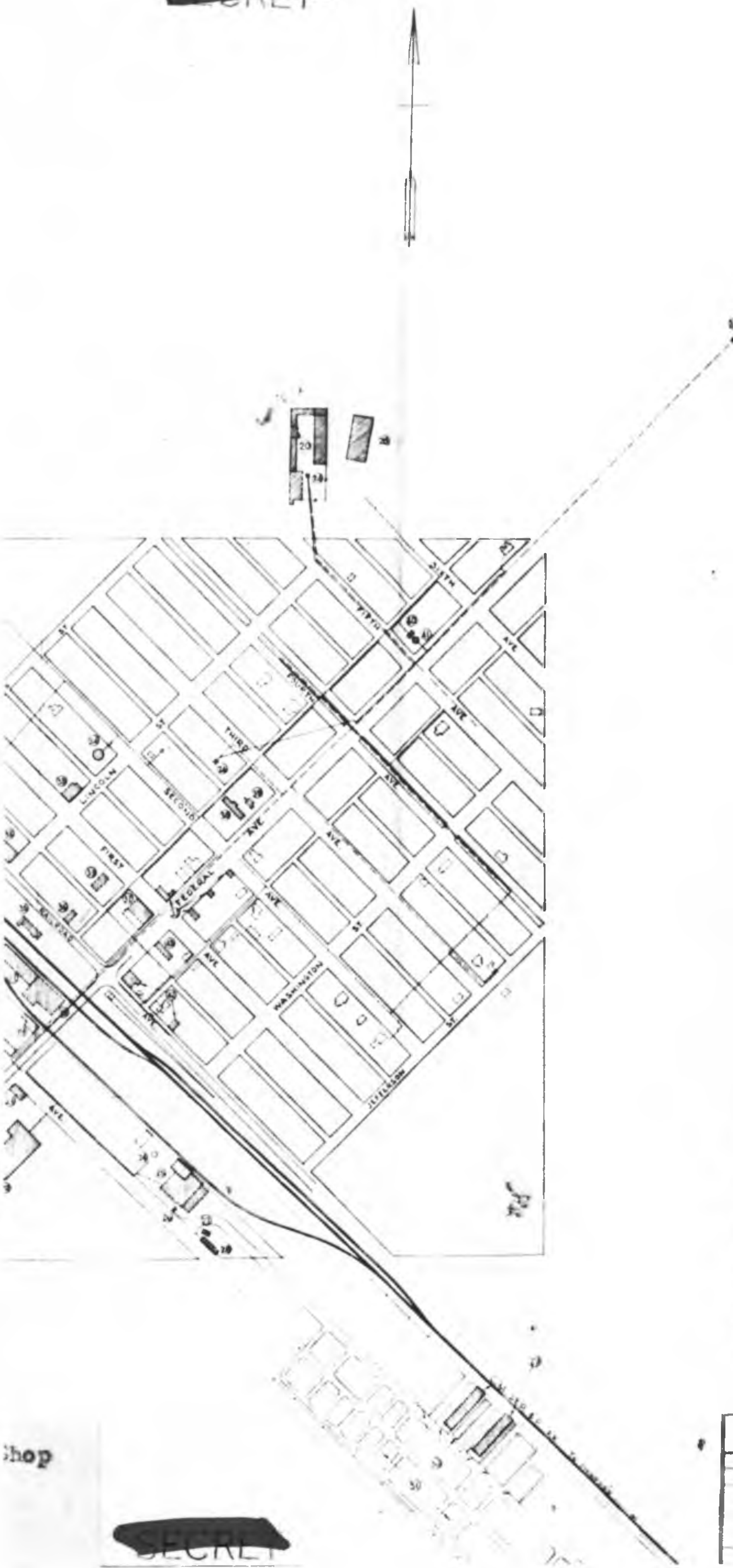

MILEAGE CHART
WASHINGTON
PROJECT
STATE INDEX
GRANT
ADAMS
KITTITAS
YAKIMA
FRANKLIN
BENTON
VICINITY MAP
CONNELL
MESA
ELTOPIA
PASCO
KENNEWICK
COLUMBIA RIVER
SNAKE RIVER
R30E.
LEGEND
PAVED ROADS
IMPROVED ROAD
UNIMPROVED ROAD
SCALE
MILES
NOTE:
TOWNSHIPS AND RANGES
BASED ON WILLAMETTE
BASE AND MERIDIAN.
GRID SYSTEM ON 10,000 INTERVALS
REVISIONS
E. I. DU PONT DE NEMOURS & CO.
DRAWING NO
C2110A
DATE 7-17-44
DEPT. TRANS.
ROAD MAP
HANFORD ENGINEER WORKS

8657

A7


R22E
R23E
R24E
R25E
R26E
R27E
BEVERLY
KITTITAS CO
YAKIMA CO
PRIEST RAPIDS
COLUMBIA RIVER
HANFORD
BARRICADE
YAKIMA
BENTON
SUNNYSIDE
GRANDVIEW
PROSSER
BENTON CITY
N160
N150
N140
N130
N120
N110
N100
N90
N80
N70
N60
N50
N40
N30
N20
N10
N0
S10
S20
S30
S40
S50
S60
S70
S80
W120
W110
W100
W90
W80
W70
W60
W50
W40
W30
W20

[redacted]



BLDG NO	DESCRIPTION
1	SPECIAL FABRICATION SHOP & WHSE.
2	BOILER HOUSE
3	WAREHOUSE
4	WAREHOUSE - 100 AREAS
5	SPECIAL WHSE. #1 - 105 AREAS
6	SPECIAL WHSE., #2 - 105 AREAS
7	CENTRAL WAREHOUSE
8	INSULATING CONTRACTOR WHSE.
9	EXCESS MATERIAL WHSE.
10	EXCESS MATERIAL OFFICE
11	AMERICAN PIPE CO.
12	MECHANICAL EQUIPMENT WHSE.
13	EQUIPMENT STORAGE PLATFORM
14	RETURNABLE CONTAINER YARD
15	FUMIGATION BUILDING
16	NAIL & SMALL TOOL WHSE.
17	RECEIVING WHSE. PLATFORM
18	RECEIVING WHSE.
19	CARLOAD RECEIVING OFFICE
20	WAREHOUSE
21	PIPE TESTING SHOP
22	MAIN PIPE FABRICATION SHOP
23	SUB-STATION
24	WELL
25	PRIEST RAPIDS COLD STORAGE BLDG.
26	PUMP HOUSE
27	LINE MATERIAL STORAGE BLDG.
28	LINE YARD OFFICE
29	PIPE STORAGE BLDGS.
30	PIPE STORAGE PLATFORMS
31	ELECTRICAL STORAGE & PIPE YARD
32	INSULATION WAREHOUSE
33	OFFICE EQUIPMENT WHSE.
34	ELEVATED WATER STORAGE TANK
35	R.R. FREIGHT STATION
36	AIR & WELDING TOOL MAINT. BLDG.
37	FIRE STATION
38	SERVICE DIVISION ENG. OFFICE
39	GOV'T. CHECKERS & RATION OFFICE
40	BOOSTER STATION
41	STORAGE TANK
42	STATIONARY STORAGE WHSE.
43	FIRE INSPECTION OFFICE
44	WAREHOUSES
45	CRANE OPERATORS OFFICE
46	RIGGERS LOFT
47	TRUCK DISPATCHERS OFFICE
48	MISC. STORAGE BLDGS.
49	SALVAGE CHECK-IN OFFICE
50	SALVAGE PLATFORM
51	SALVAGE PARTS WHSE.
52	SALVAGE PARTS OFFICE

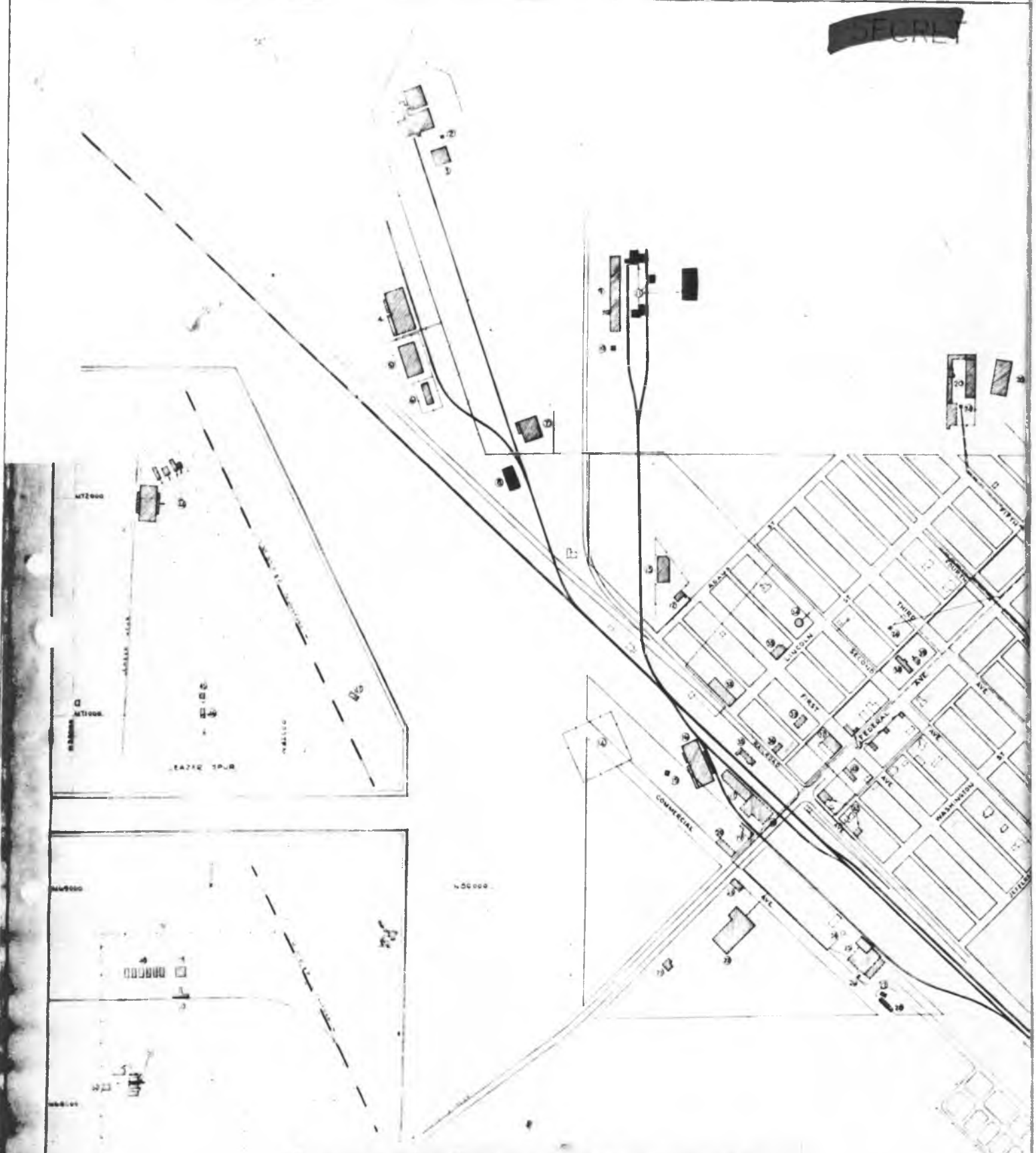
LEGEND

- EXISTING BUILDINGS
- EXISTING BUILDING USED
- BUILDINGS CONSTRUCTED BY DUPONT
- BUILDINGS CONSTRUCTED BY SUB CONTRA
- PERMANENT RAILROADS
- T.C. RAILROADS
- T.C. WATER LINES
- T.C. FENCES
- EXISTING WATER LINES

REVISIONS	APPROVAL FOR				E I DUPONT DE N
	DUPONT	DATE	U.S. AREA ENG'R	DATE	HANFORD EN
					WHITE BLUFFS SHOWING TEMPO
					SCALE

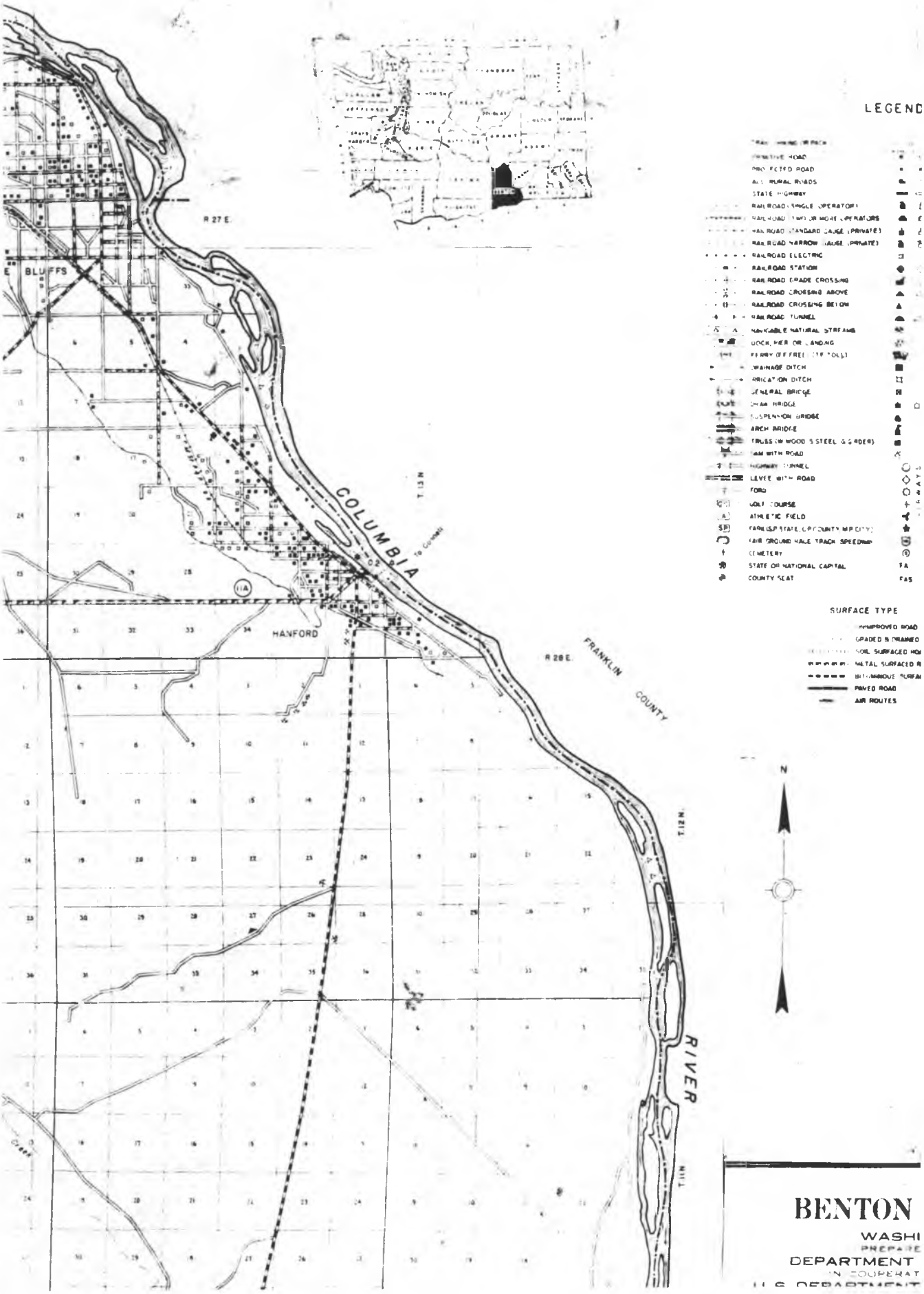
Shop

[redacted]



* Building 31, White Bluffs Fabrication Shop
** Building 33, Masonite Shop
*** Building 311, Concrete Pipe Shop

(See Page 5.24-5.25)



BENTON

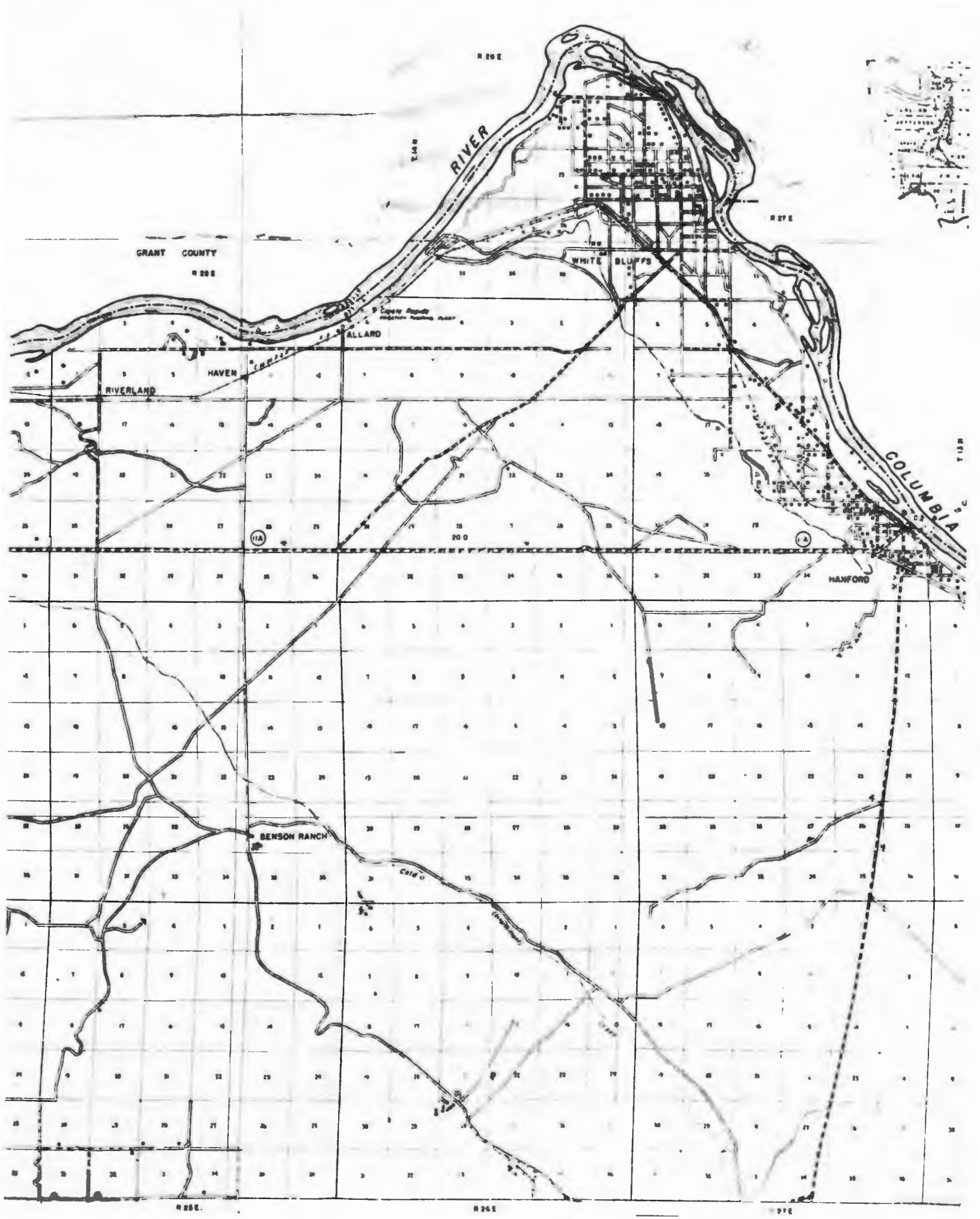
WASHI

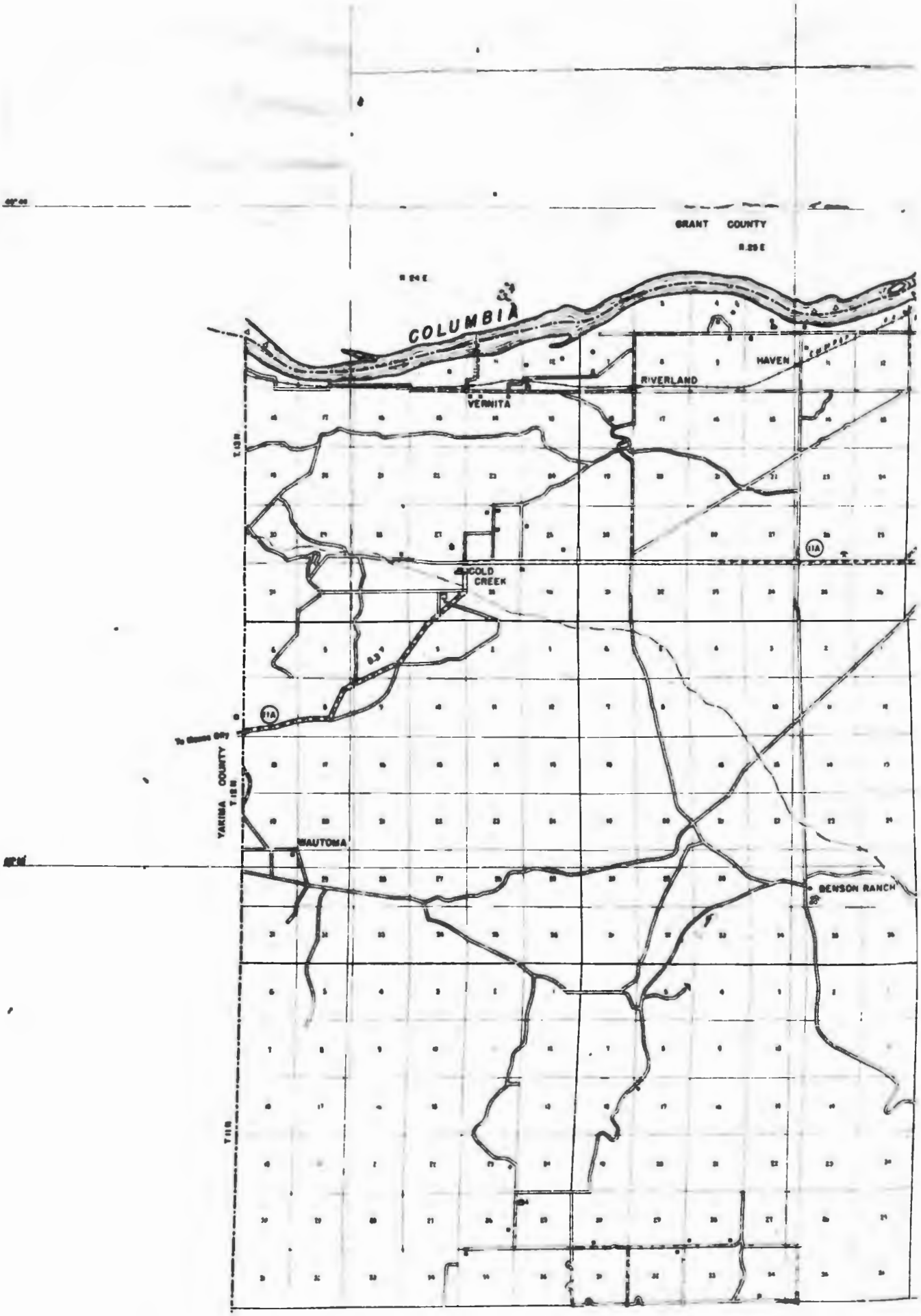
PREPARE

DEPARTMENT

IN COOPERAT

U.S. DEPARTMENT

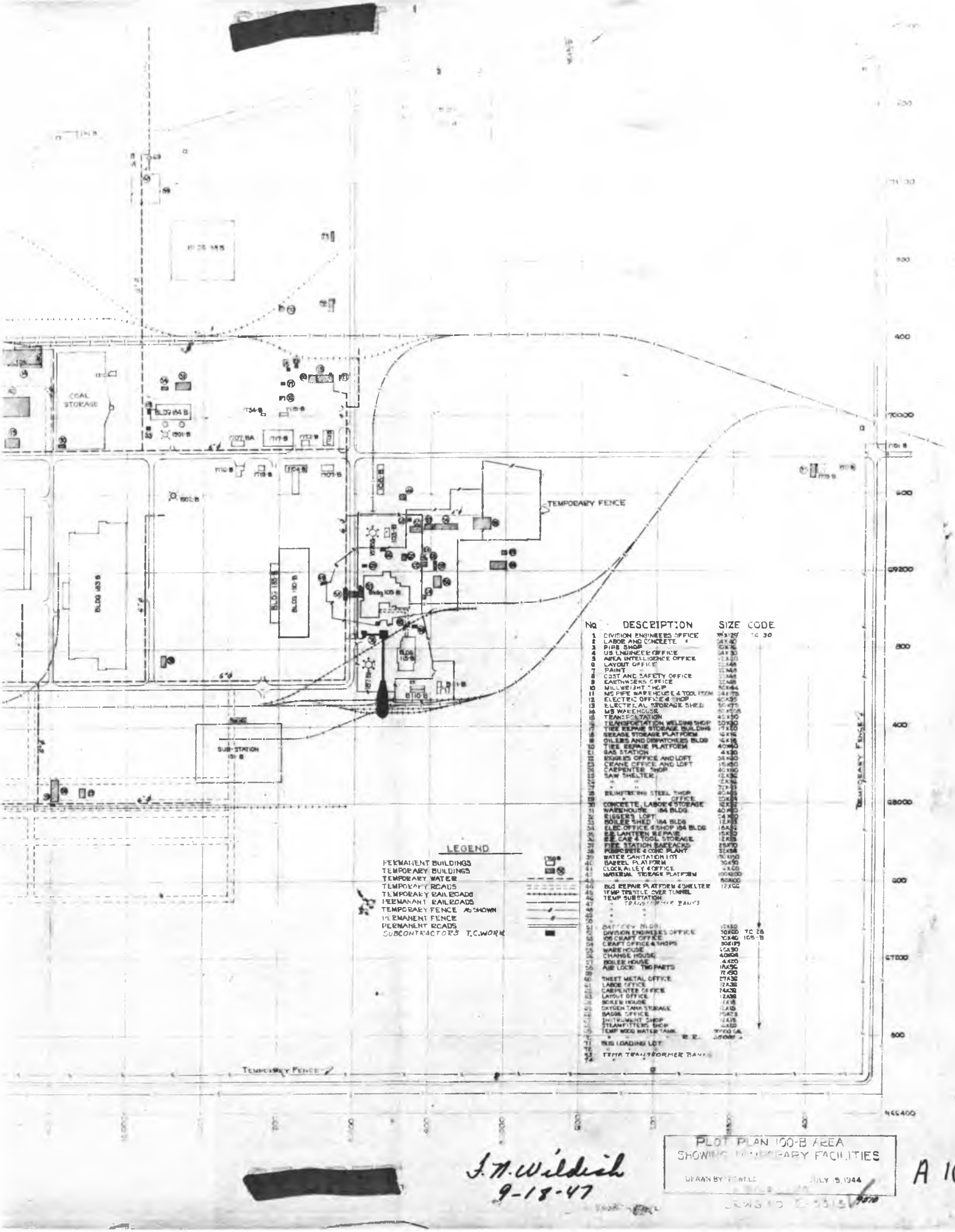

RIVER
GRANT COUNTY
WHITE BLUFFS
ALLARD
HAVEN
RIVERLAND
COLUMBIA
HANFORD
BENSON RANCH
R 28 E.
R 26 E
R 27 E


GRANT COUNTY
COLUMBIA
HAVEN
RIVERLAND
VERNITA
COLD CREEK
11A
YAKIMA COUNTY
WAUTOMA
BENSON RANCH

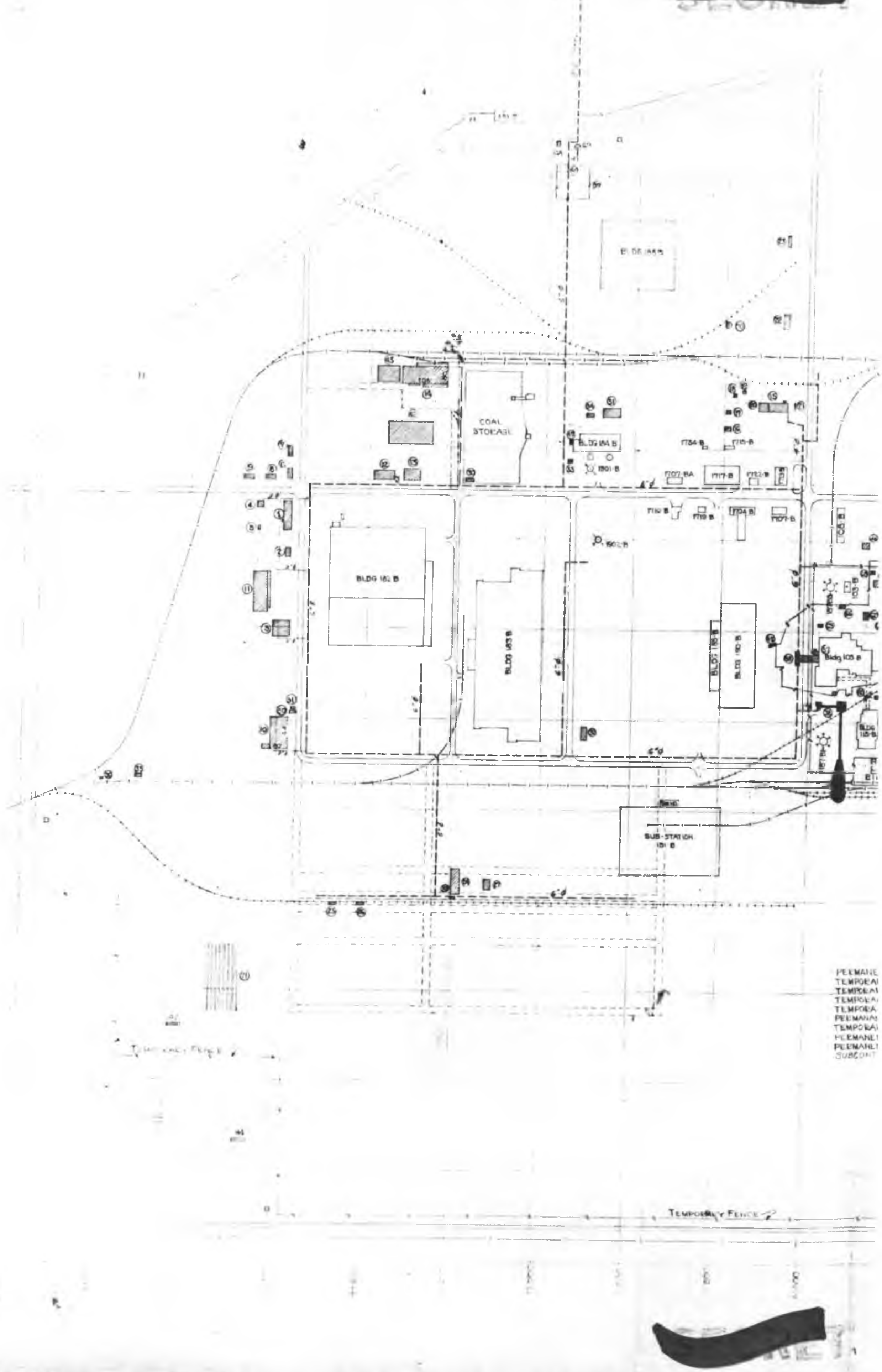
[redacted]

Original or printe of Plate #11 cannot be located in our files.

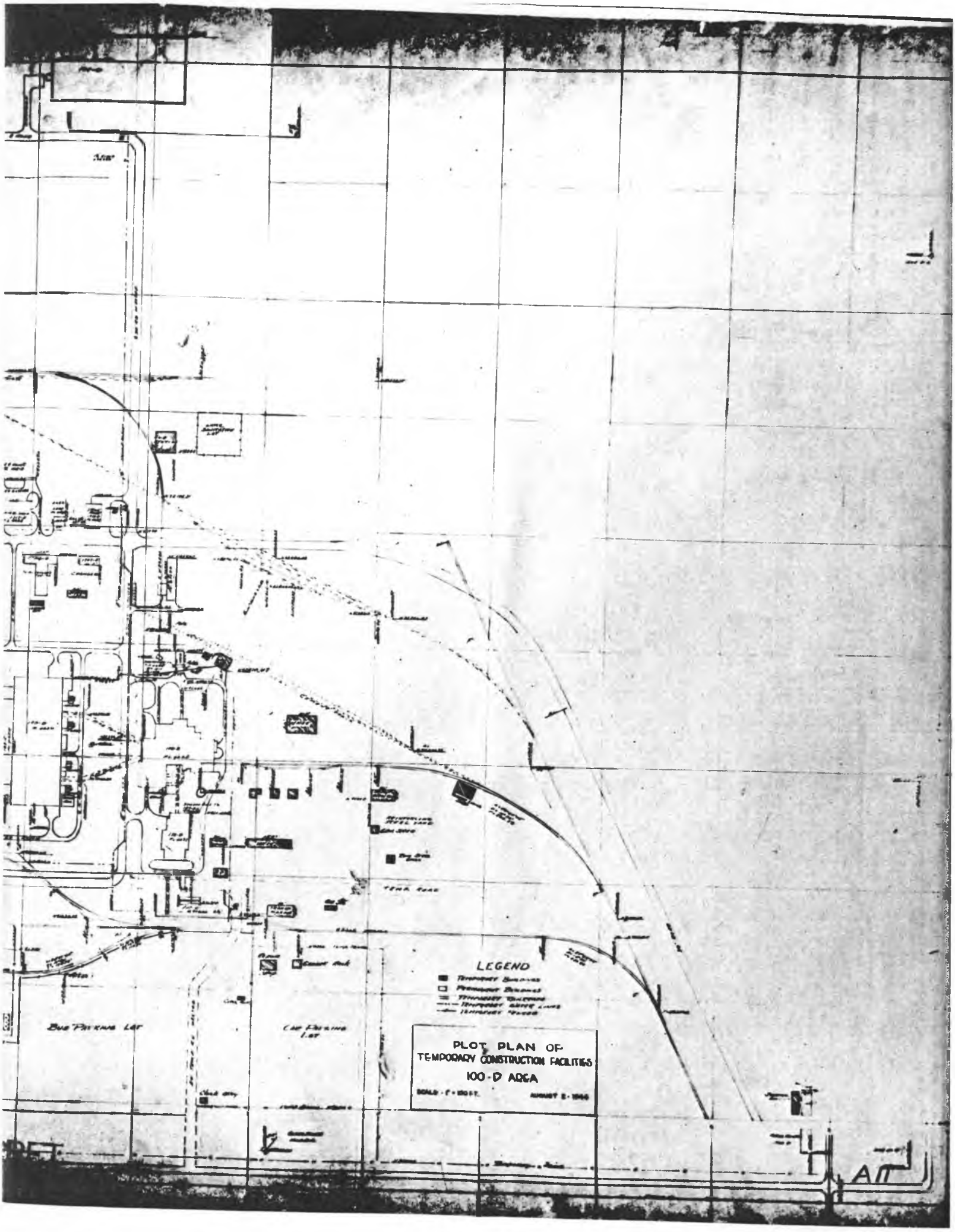
[redacted]

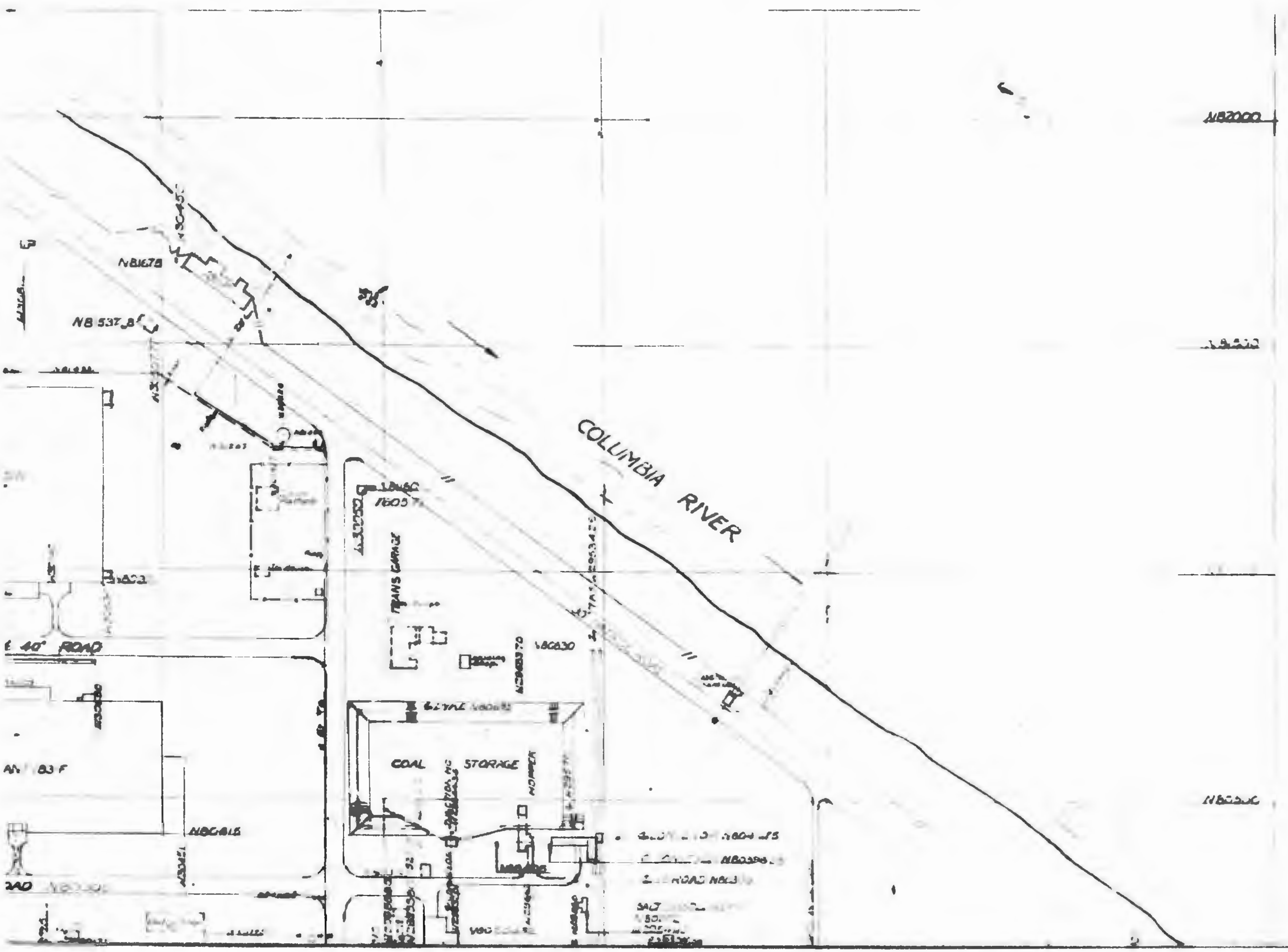

COAL STORAGE
BLDG 184 B
BLDG 183 B
BLDG 185 B
BLDG 105 B
SUB-STATION 151 B
TEMPORARY FENCE
TEMPORARY FENCE
TEMPORARY FENCE
LEGEND
PERMANENT BUILDINGS
TEMPORARY BUILDINGS
TEMPORARY WATER
TEMPORARY ROADS
TEMPORARY RAILROADS
PERMANANT RAILROADS
TEMPORARY FENCE AS SHOWN
PERMANENT FENCE
PERMANENT ROADS
SUBCONTRACTOR'S T.C.WORK
No. DESCRIPTION SIZE CODE
1 DIVISION ENGINEERS OFFICE TC 30
2 LABOR AND CONCRETE
3 PIPE SHOP
4 U.S. ENGINEER OFFICE
5 AREA INTELLIGENCE OFFICE
6 LAYOUT OFFICE
7 PAINT
8 COST AND SAFETY OFFICE
9 EARTHWORKERS OFFICE
10 MILLWRIGHT SHOP
11 MS PIPE WAREHOUSE & TOOL ROOM
12 ELECTRIC OFFICE & SHOP
13 ELECTRICAL STORAGE SHED
14 MS WAREHOUSE
15 TRANSPORTATION
16 TRANSPORTATION WELDING SHOP
17 TIRE REPAIR STORAGE BUILDING
18 GREASE STORAGE PLATFORM
19 OILERS AND DISPATCHERS BLDG
20 TIRE REPAIR PLATFORM
21 GAS STATION
22 RIGGERS OFFICE AND LOFT
23 CRANE OFFICE AND LOFT
24 CARPENTER SHOP
25 SAW SHELTER
26 REINFORCING STEEL SHOP
27 " " OFFICE
28 CONCRETE LABOR & STORAGE
29 WAREHOUSE 184 BLDG.
30 RIGGERS LOFT
31 BOILER SHED 184 BLDG
32 ELEC. OFFICE & SHOP 184 BLDG
33 EE LANTERN REPAIR
34 EE CAR & TOOL STORAGE
35 FIRE STATION BARRACKS
36 PUMPCRETE & CONC. PLANT
37 WATER SANITATION UNIT
38 BARREL PLATFORM
39 CLOCK ALLEY & OFFICE
40 MATERIAL STORAGE PLATFORM
41 " " "
42 BUS REPAIR PLATFORM & SHELTER
43 TEMP TRESTLE OVER TUNNEL
44 TEMP SUBSTATION
45 " " TRANSFORMER BANKS
46 " "
47 " "
48 BATTERY HOUSE
49 DIVISION ENGINEERS OFFICE TC 28
50 IOI CRAFT OFFICE 105-B
51 CRAFT OFFICE & SHOPS
52 WAREHOUSE
53 CHANGE HOUSE
54 BOILER HOUSE
55 AIR LOCK TWO PARTS
56 "
57 SHEET METAL OFFICE
58 LABOR OFFICE
59 CARPENTER OFFICE
60 LAYOUT OFFICE
61 BOILER HOUSE
62 OXYGEN TANK STORAGE
63 SAGGIE OFFICE
64 INSTRUMENT SHOP
65 STEAMFITTERS SHOP
66 TEMP WOOD WATER TANK
67 " " " "
68 BUS LOADING LOT
69 " "
70 TEMP TRANSFORMER BANKS
71 " "
72 " "
73 " "
74 " "
NEGRO
PLOT PLAN 100-B AREA
SHOWING TEMPORARY FACILITIES
DRAWN BY P.W.L.C. JULY 5, 1944
LEWIS E. 5516
A 10
J. N. Wildish
9-18-47

[redacted]

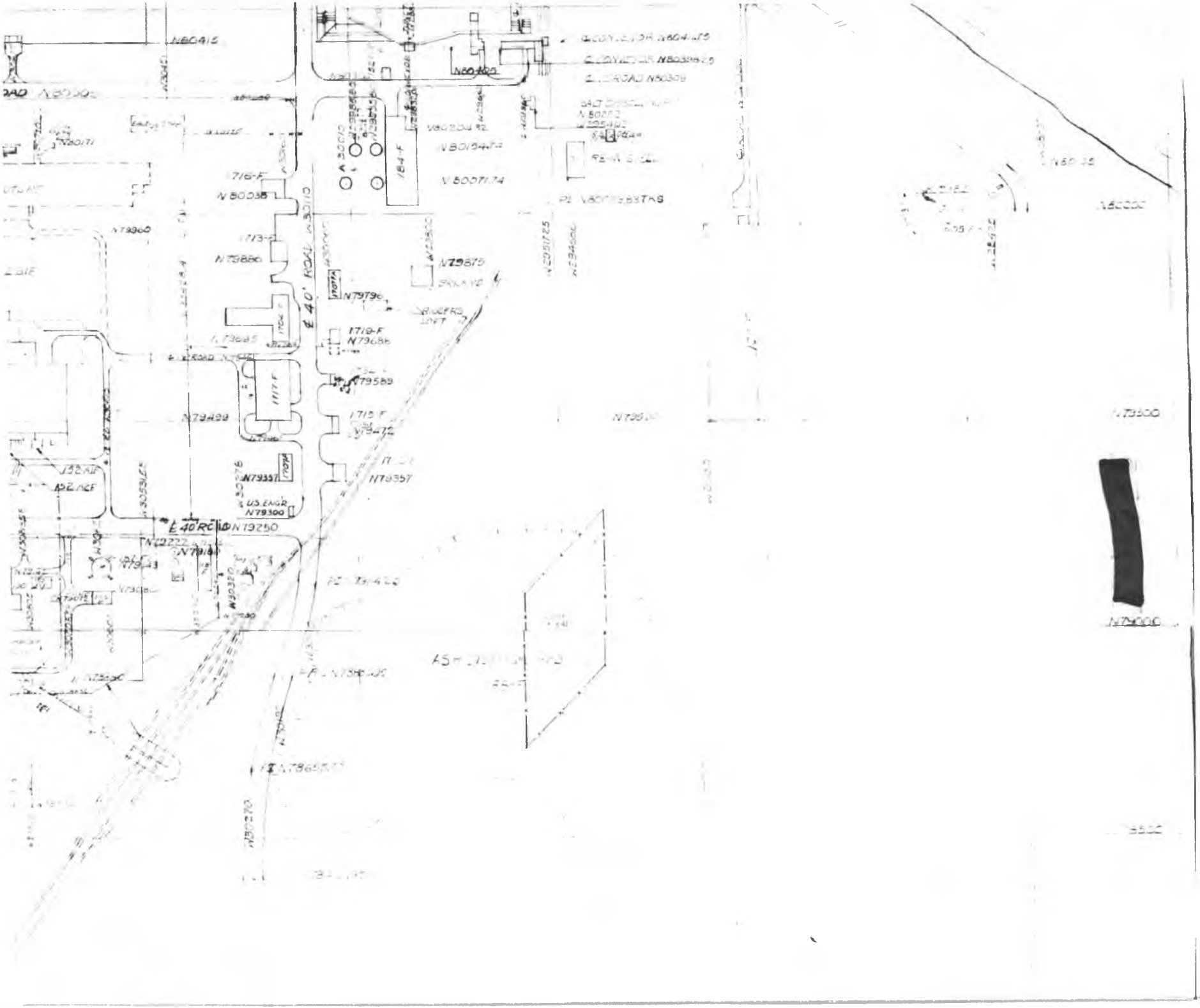


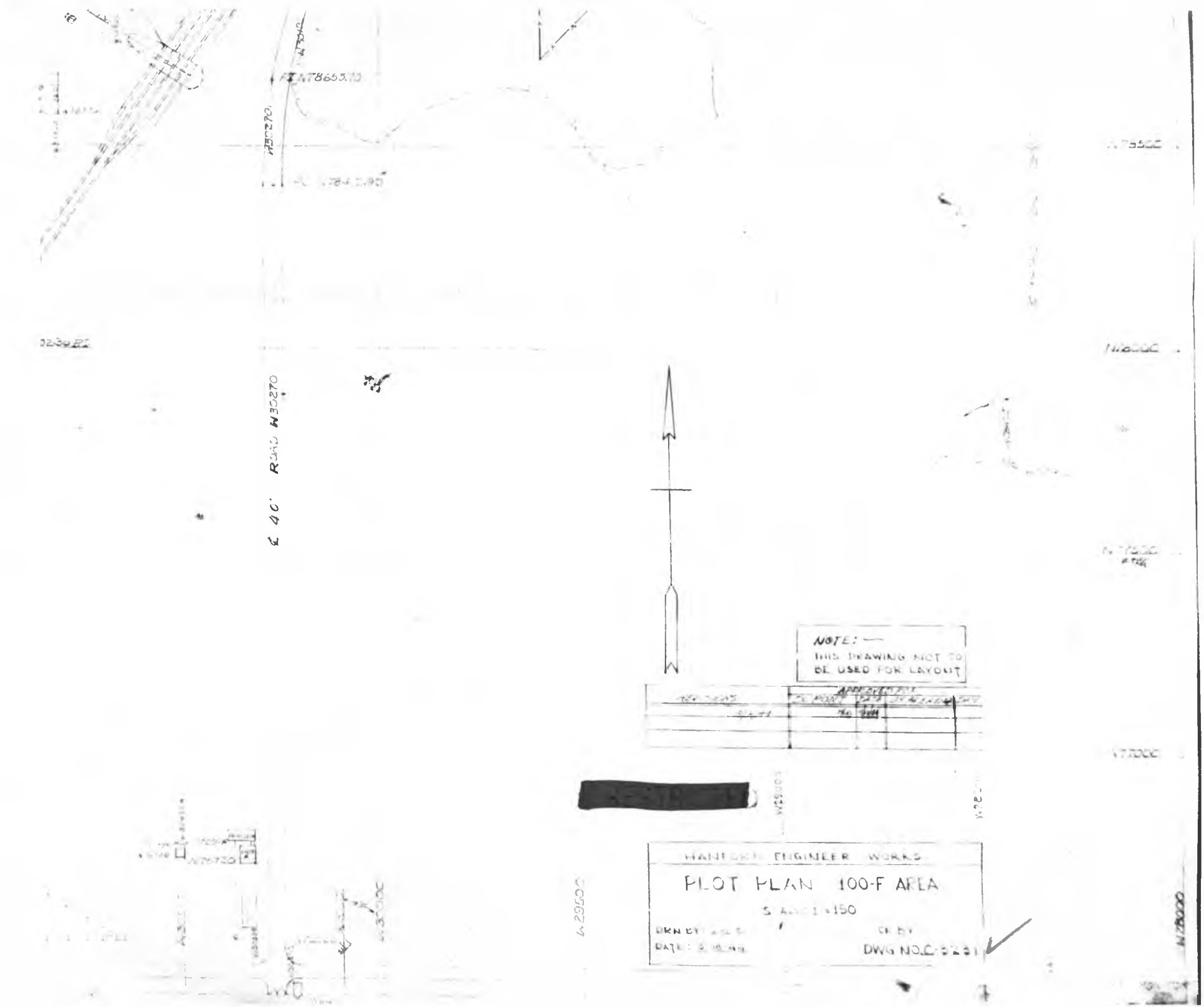
[redacted]


LEGEND
PLOT PLAN OF
TEMPORARY CONSTRUCTION FACILITIES
100-D AREA

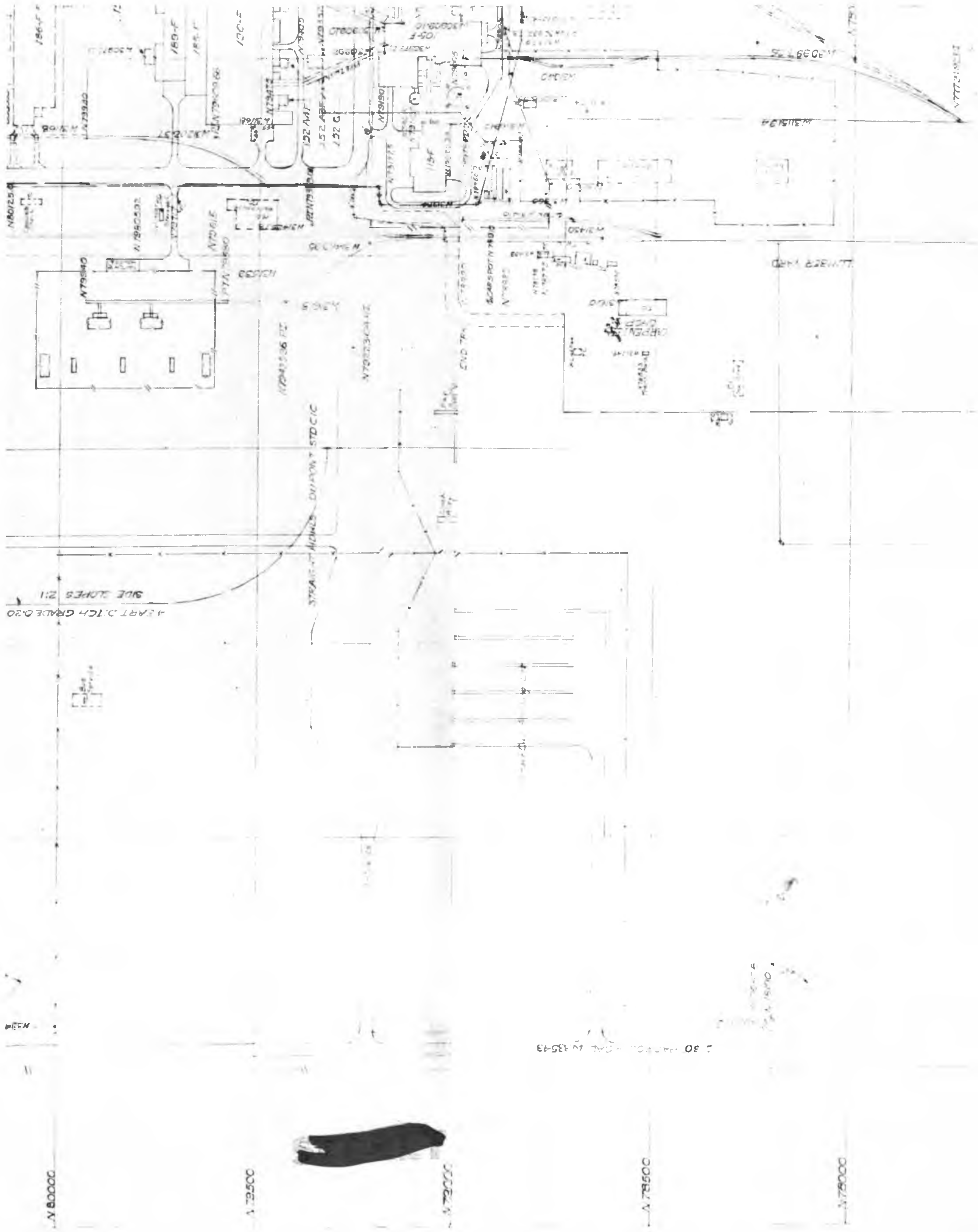


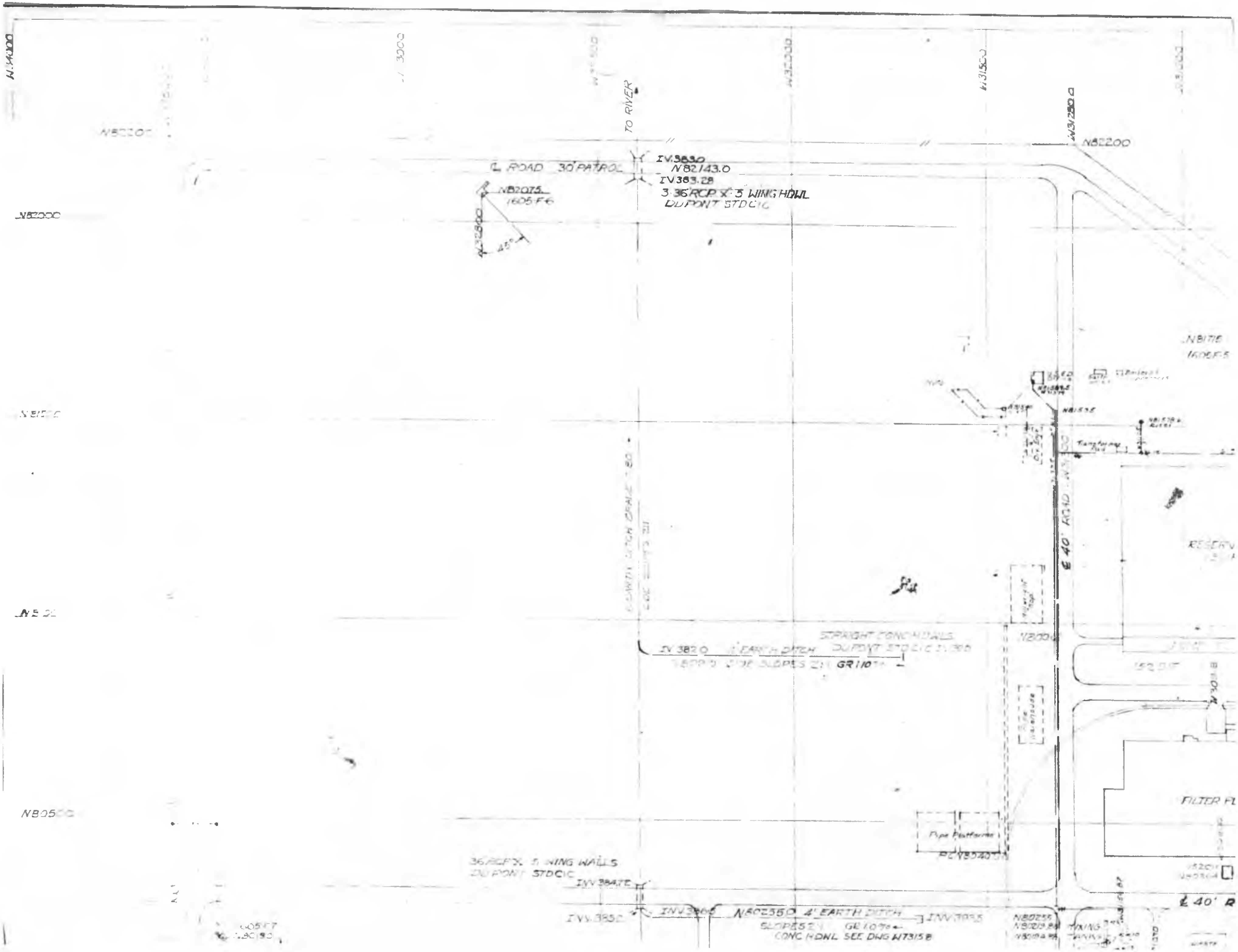
N82000
COLUMBIA RIVER
N81678
NB 537.8
TRANS GARAGE
N80630
COAL
STORAGE
HOPPER
40' ROAD
N80815

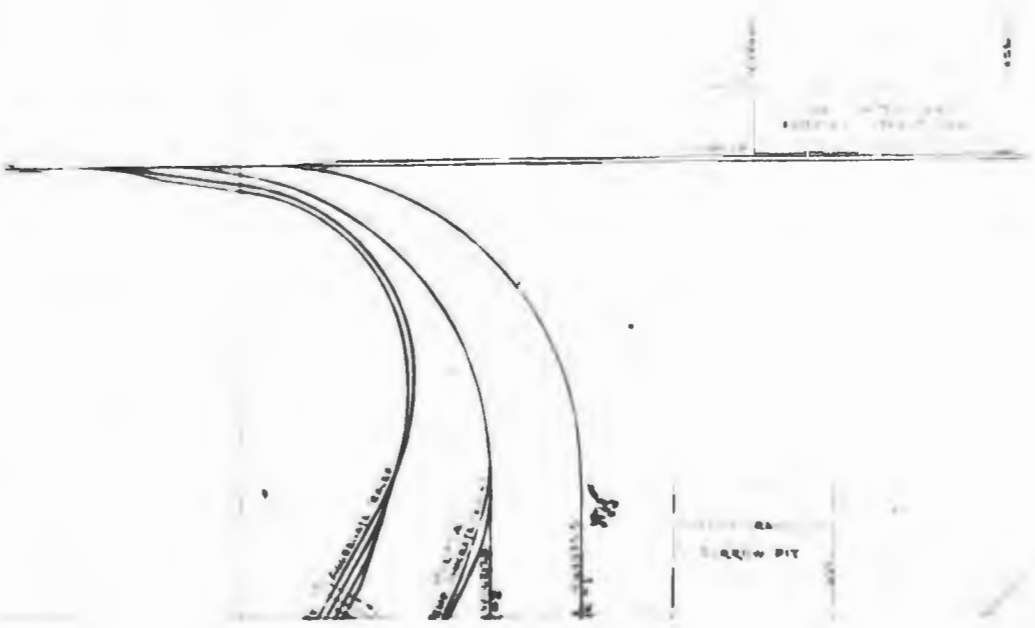

E 40' ROAD
E 40' RD
N79250
N79300
N79357
N79472
N79588
N79686
N79796
N79875
N79886
N79960
N80038
N80171
N80240
N79498
N79000
N79500
1716-F
1717-F
1718-F
1719-F
1715-F
1773-F
1774-F
1784-F
ROOFED OFF
US ENGR

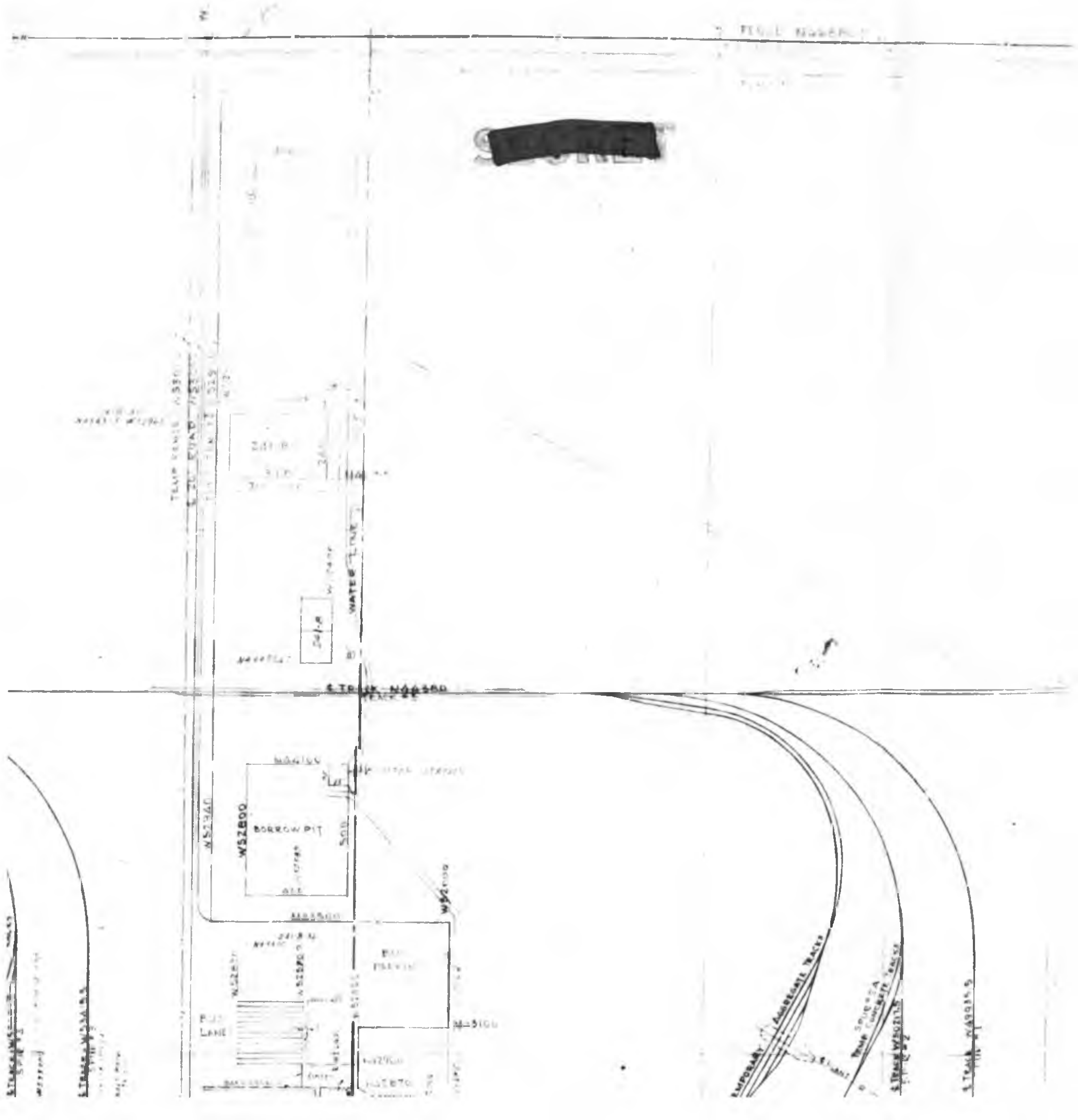

NOTE:—
THIS DRAWING NOT TO BE USED FOR LAYOUT
HANFORD ENGINEER WORKS
PLOT PLAN 100-F AREA
DWG NO. C-5281

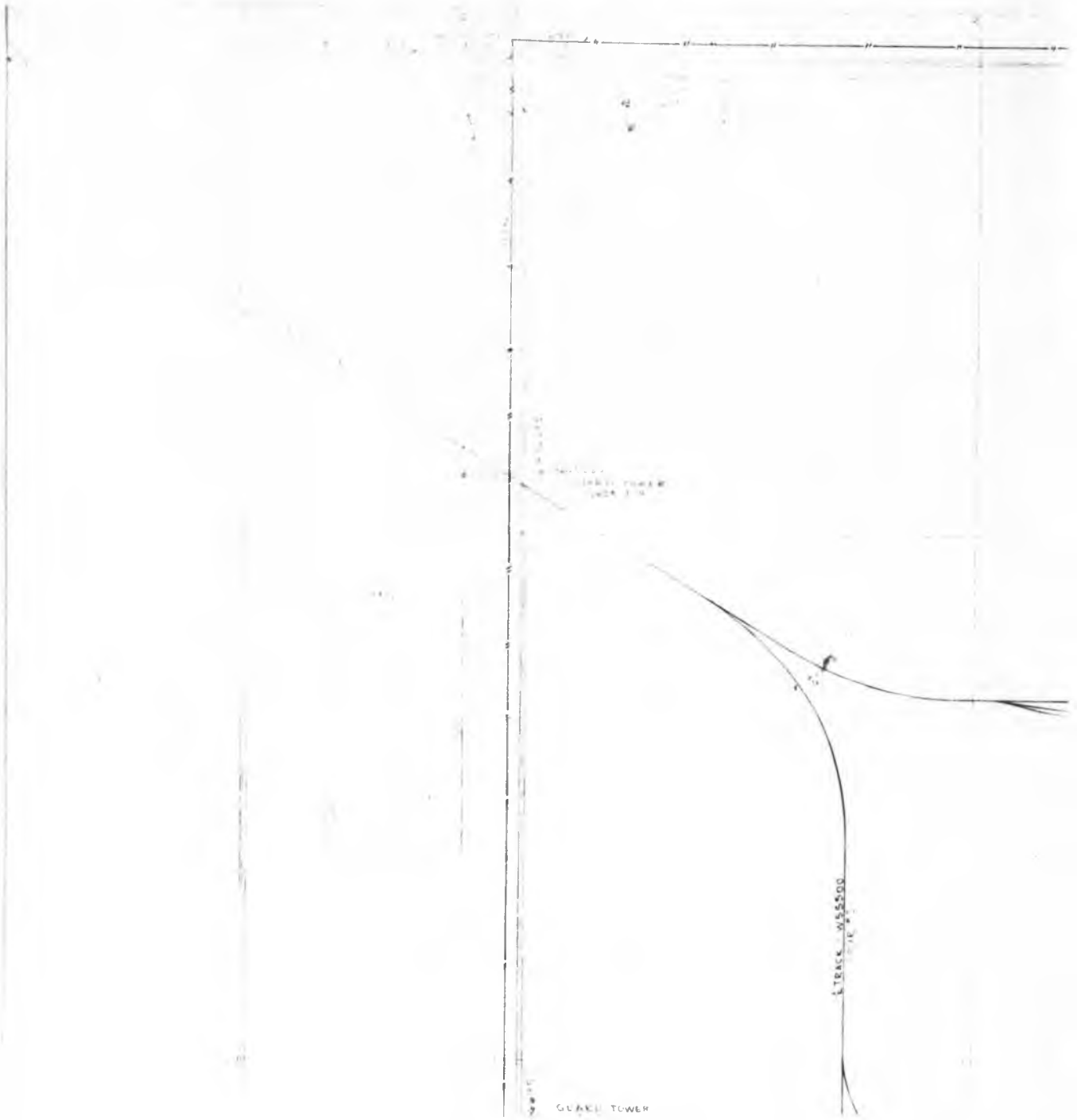
A 12

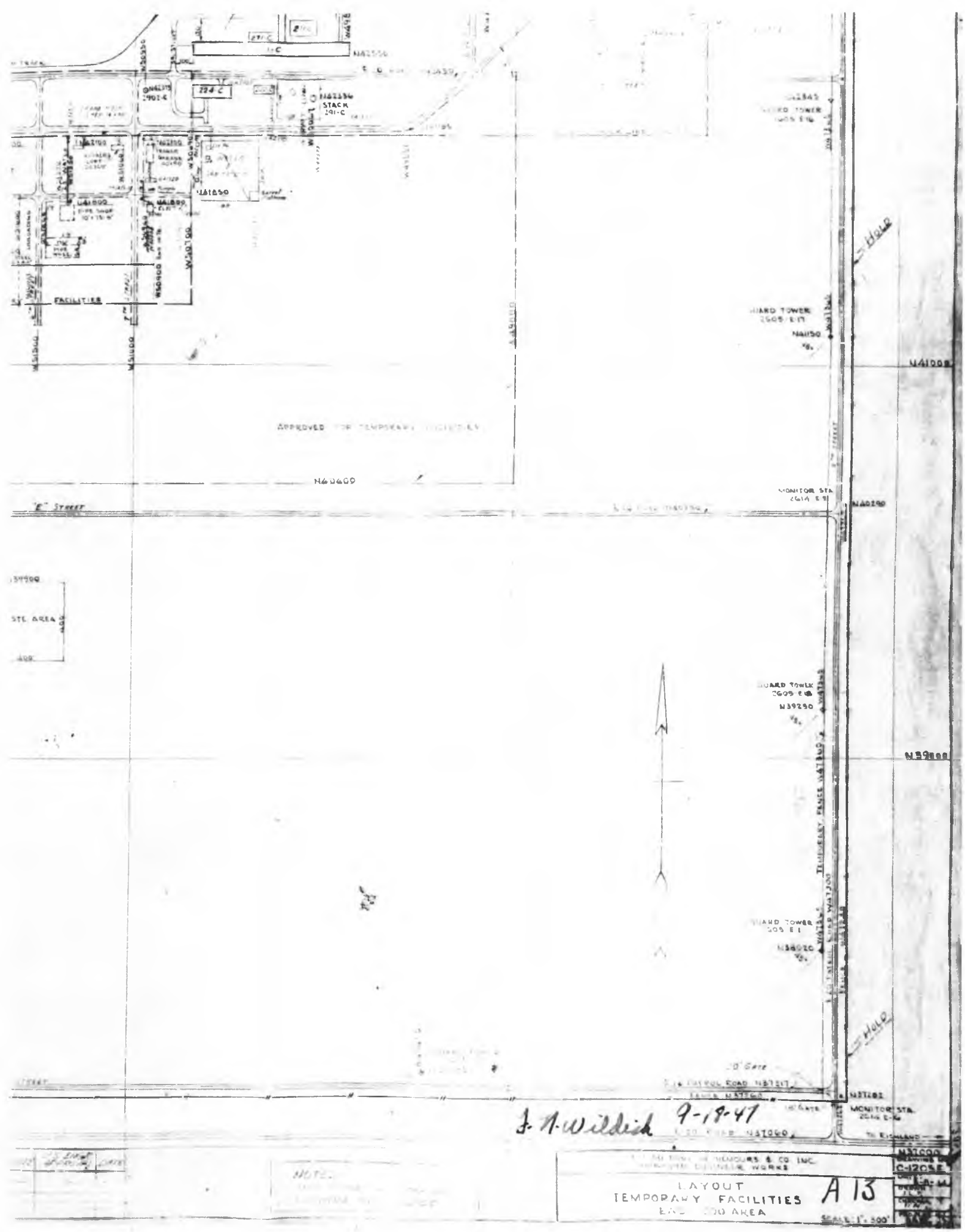

N 80000
SIDE SLOPES 2:1


W34000
N82200
N82000
W33000
TO RIVER
℄ ROAD 30' PATROL
IV 383.0
N82143.0
IV 383.28
3-36" RCP X 5' WING HDWL
DUPONT STD C.I.C.
N82075
1605 F6
W32800
45°
W32000
W31500
W31250.0
N82200
N81715
1605 F5
℄ 40' ROAD
STRAIGHT CONC HDWLS
DUPONT STD C.I.C.
IV 382.0
GR 1/10
Pipe Platforms
FILTER PL
N80500
36" RCP X 5' WING WALLS
DUPONT STD C.I.C.
INV 384.75
INV 385.0
INV 384.0
N80235.0 4' EARTH DITCH
SLOPES 2:1 GR 1.07
CONC HDWL SEE DWG W7315 B
INV 383.5
N80255
℄ 40' R

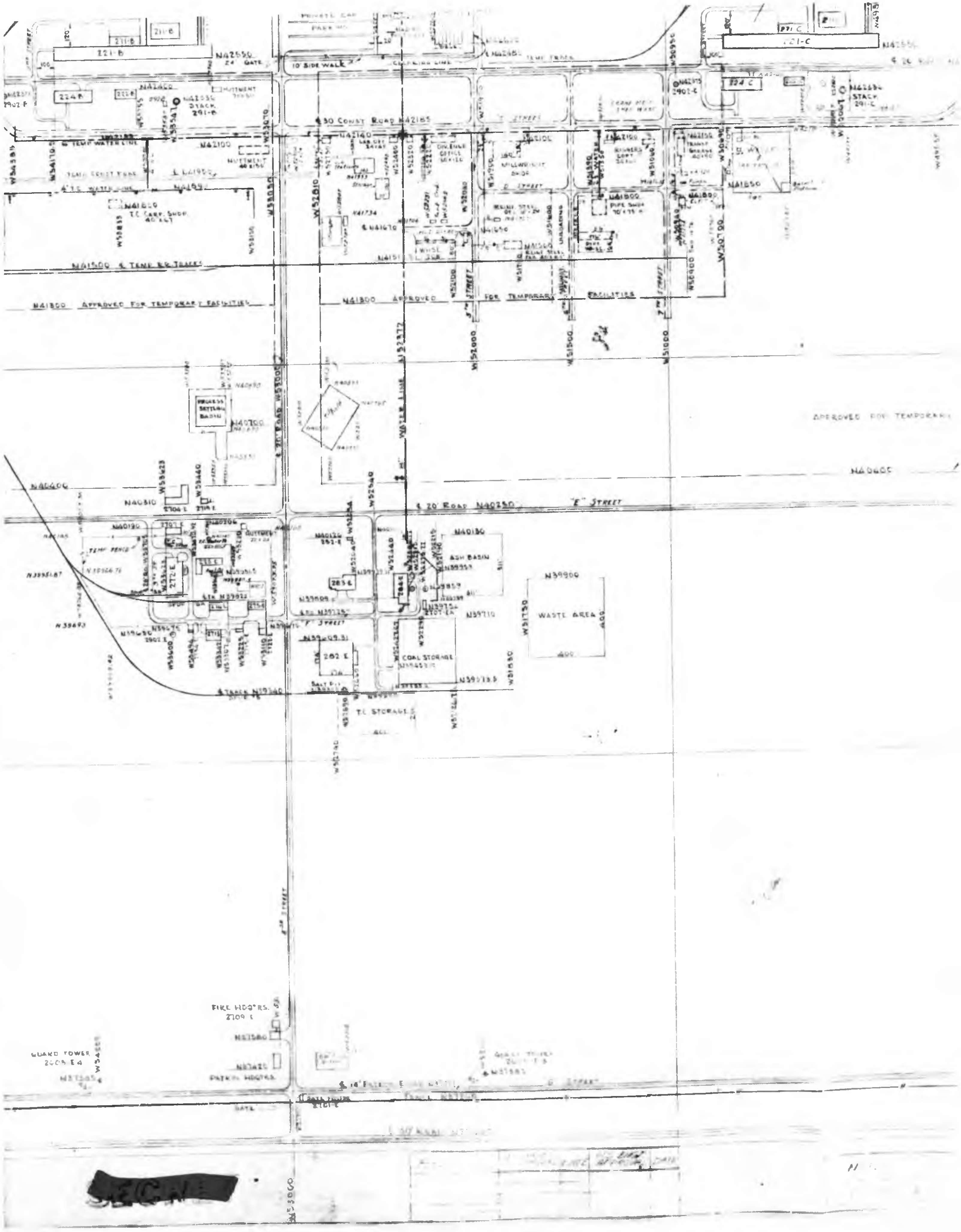


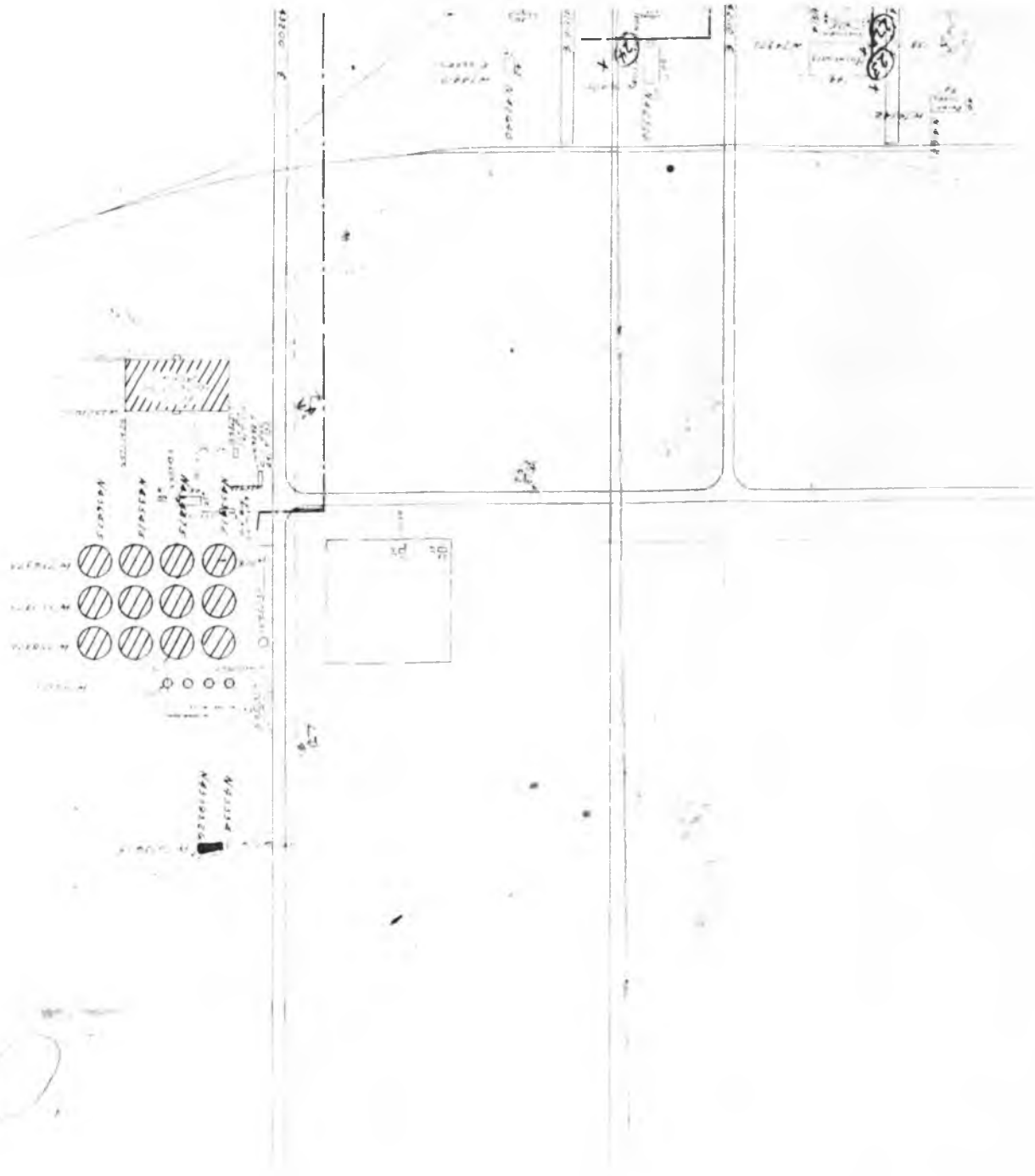

[redacted]
WATER LINE
BORROW PIT
W52800
N48500
N49100


GUARD TOWER

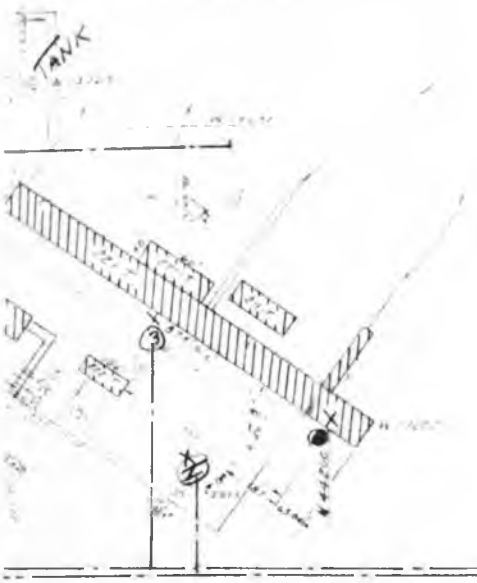


J. N. Wildish 9-18-47


221-B
211-B
N42550
24' GATE
10' SIDE WALK
224-B
STACK
291-B
¢ 30 CONST ROAD N42185
N42100
MILLWRIGHT SHOP
PIPE SHOP
N41500 ¢ TEMP RR TRACKS
N41300 APPROVED FOR TEMPORARY FACILITIES
N41300 APPROVED FOR TEMPORARY FACILITIES
W52000
W51500
W51000
PROCESS SETTLING BASIN
N40700
¢ 20' ROAD W53050
WATER LINE W52372
APPROVED FOR TEMPORARY
N40600
N40600
N40810
2704 E
¢ 20' ROAD N40250
"E" STREET
N40190
N40130
ASH BASIN
272 E
284 E
N39900
WASTE AREA
COAL STORAGE
282 E
¢ TRACK N39540
T.C. STORAGE
221-C
224 C
STACK
291-C
FIRE HDQ'RS.
2709 E
N37580
PATROL HDQTRS.
GUARD TOWER
W53060
[redacted]



W 73600



F. N. Welsh 4-19-44
(2 parts)

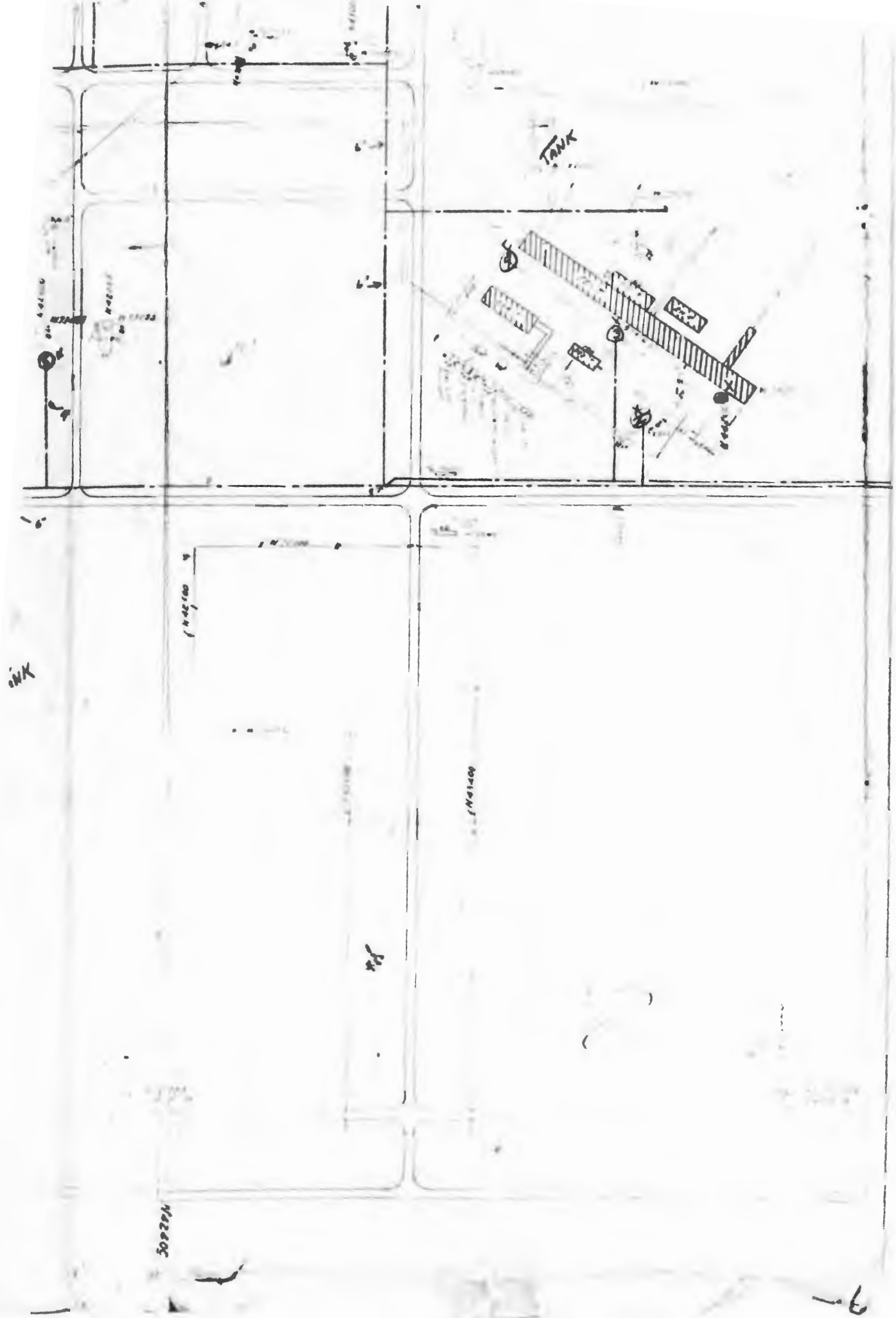
LEGEND

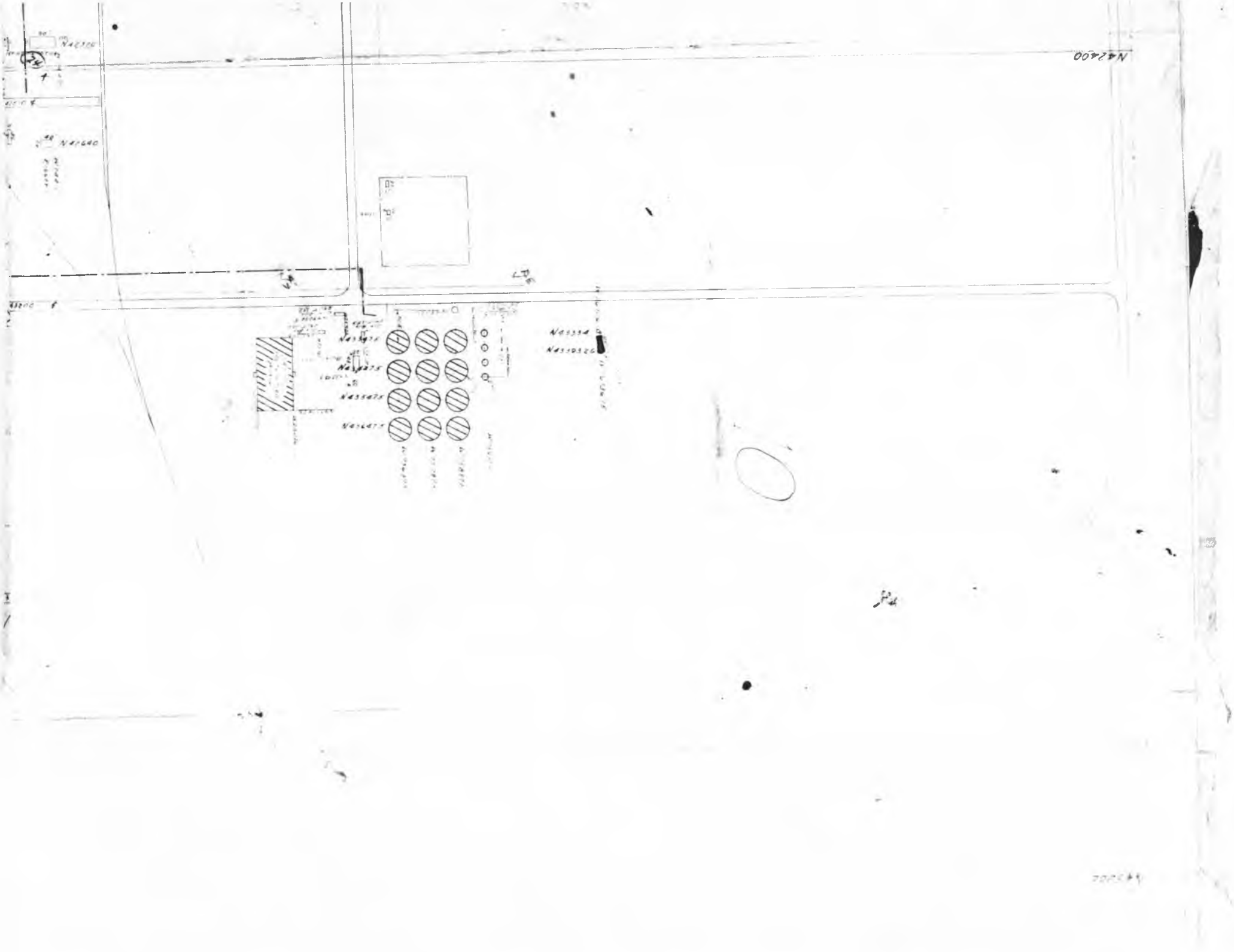
- DU PONT TEMPORARY CONSTR.
- TC NOT ERECTED BY DUPONT
- PERMANENT CONSTRUCTION
- TEMPORARY WATER LINES
- TEMPORARY RAILROADS

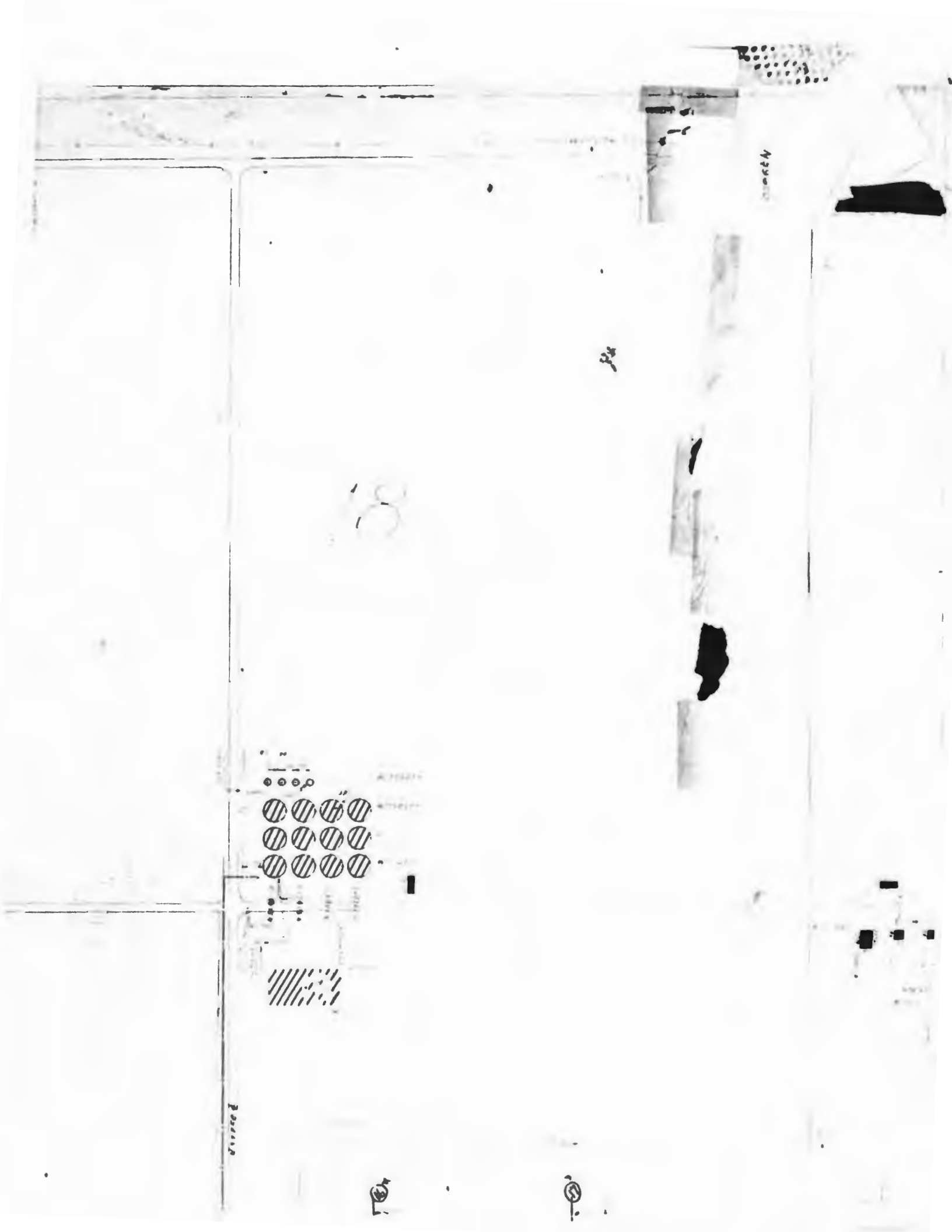
C 1212 A

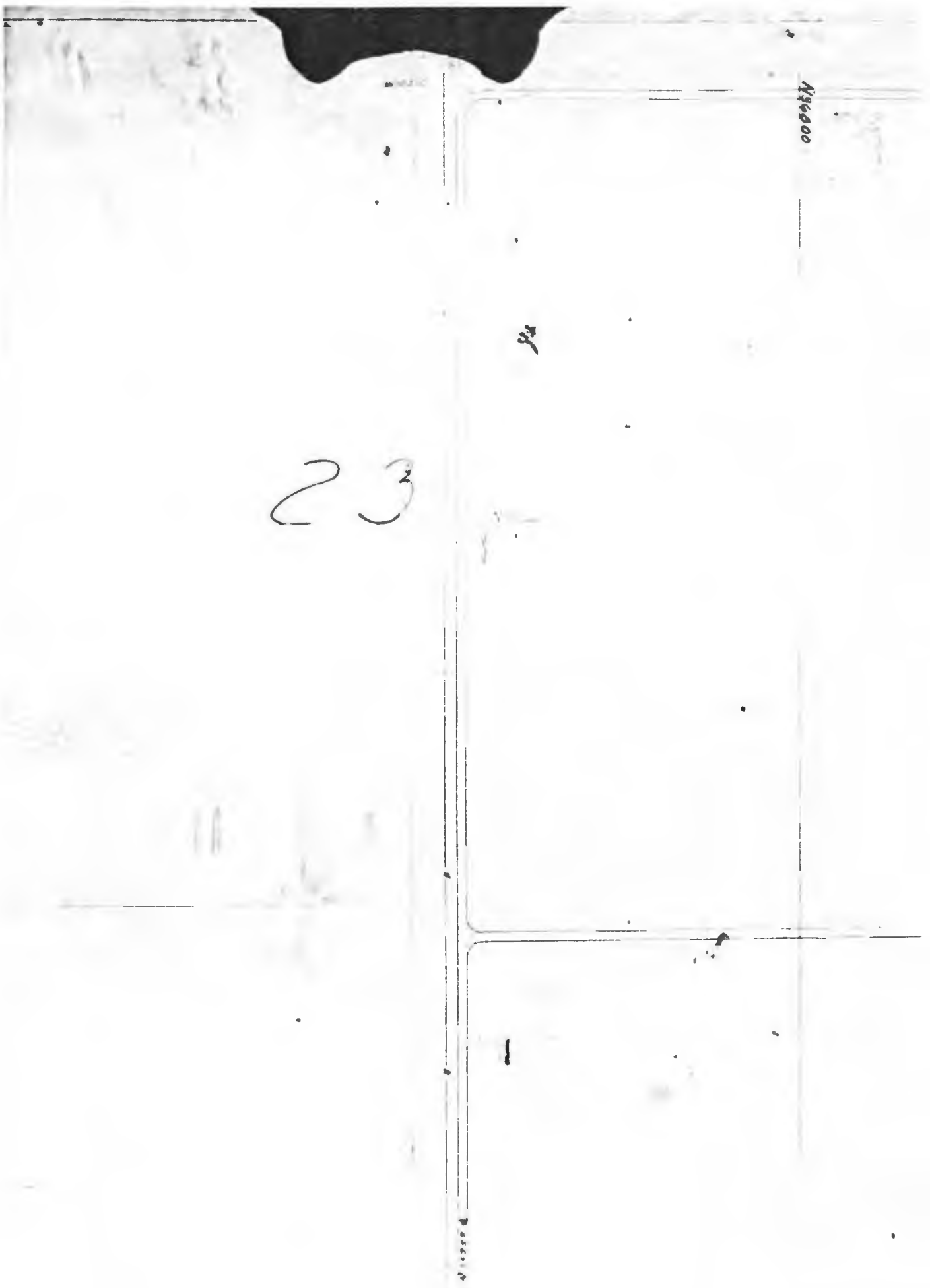
CN-4520A

A14

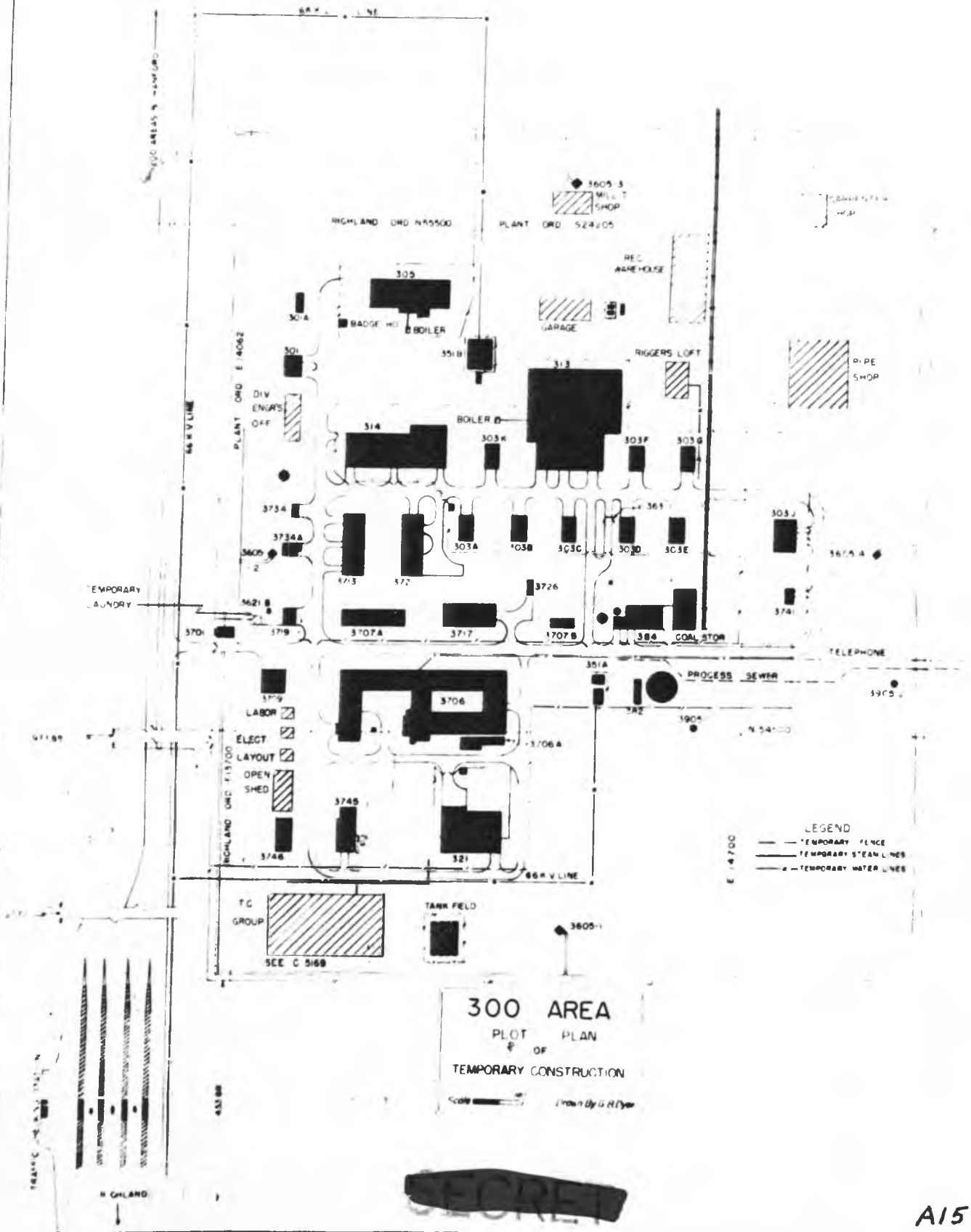

TANK



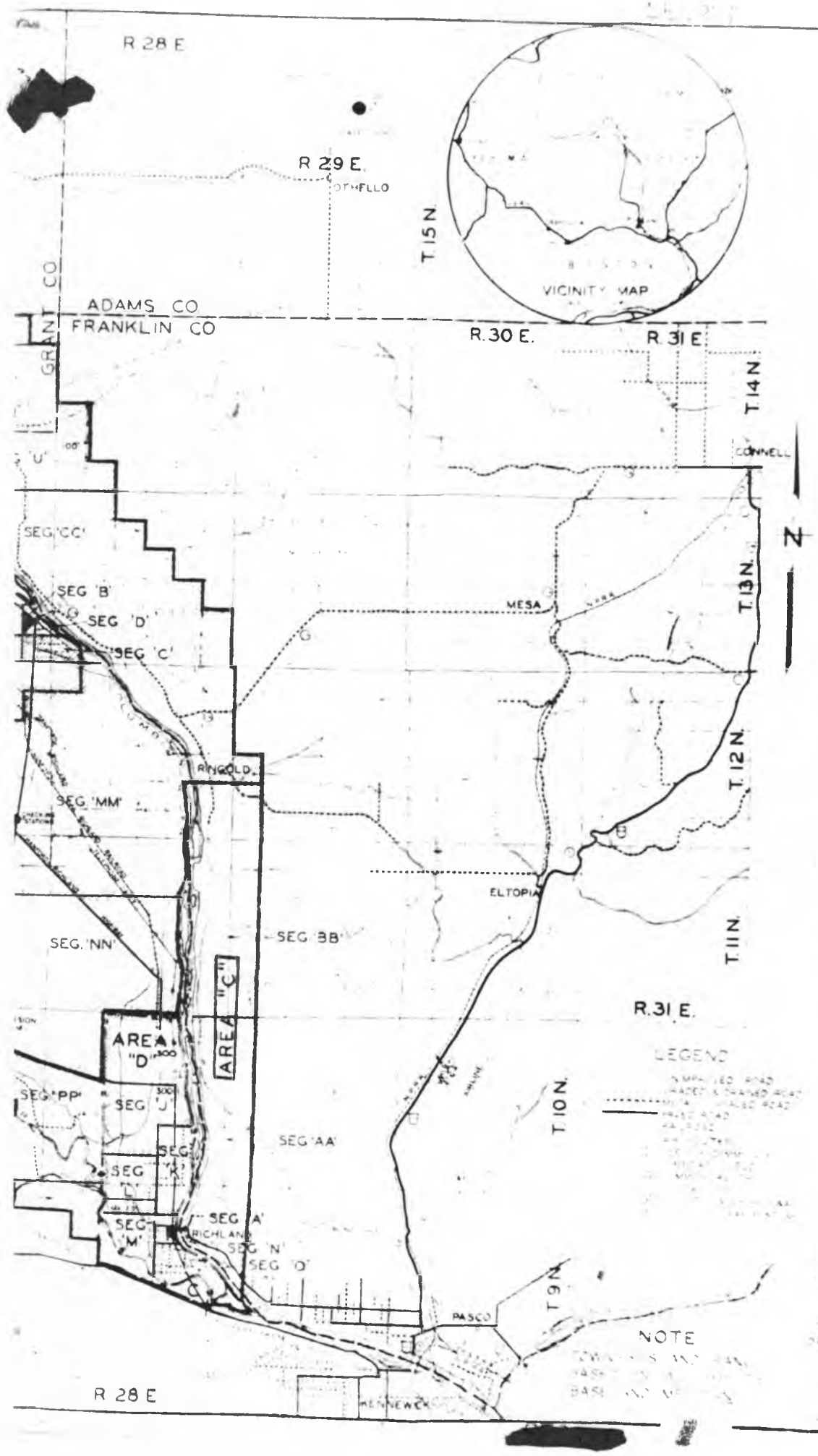



23


SOUTH


RICHLAND ORD N55500
PLANT ORD 524205
305
BADGE HO
BOILER
REC WAREHOUSE
GARAGE
RIGGERS LOFT
PIPE SHOP
313
314
BOILER
DIV ENGRS OFF
PLANT ORD E 4062
66 K V LINE
TEMPORARY LAUNDRY
3706
3706A
LABOR
ELECT
LAYOUT
OPEN SHED
3745
3746
321
TELEPHONE
PROCESS SEWER
COAL STOR
TG GROUP
SEE C 5169
TANK FIELD
LEGEND
TEMPORARY FENCE
TEMPORARY STEAM LINES
TEMPORARY WATER LINES
300 AREA
PLOT PLAN
OF
TEMPORARY CONSTRUCTION
Scale
Drawn By G R Dyer

A15



KEY MAP OF SEGMENTS

STATE WASHINGTON

COUNTY GRANT, ADAMS, FRANK

DIVISION

DISTRICT MANHATTAN

SERVICE COMMAND NINTH

USING AGENCY

MILES W OF PASCO, WASHINGTON

MILES NNE OF PROSSER, WASHINGTON

TRANSPORTATION FACILITIES

U.P., C.P., S.P.&S., AND C.M.ST.P.&P. R.R. RAILROAD

NO. 12, 12A, 3, 3A, AND NO. 8E STATE

NO. 395, AND NO. 410 FEDERAL

UNITED AIR

LAND AREA

ACRES OWNED BY W.D.

ACRES LEASED BY W.D.

ACRES LEASED FROM W.D.

ACRES TRANSFERRED TO W.D.

ACRES DONATED TO W.D.

DISPOSALS

ACRES SOLD

ACRES TRANSFERRED

ACRES EXCHANGED

ACRES OTHERWISE

LEGEND

RESERVATION LINE

STATE OR PROVINCE LINE

COUNTY LINE

CIVIL DISTRICT PRECINCT

LAND GRANT LINE

CITY, VILLAGE, OR BOROUGH

CEMETERY SMALL PARK, ETC.

TOWNSHIP LINE

SECTION LINE

SCALE

MILES

WAR DEPARTMENT, C.E.

CONSTRUCTION DIVISION

REAL ESTATE

HANFORD ENGINEER WORKS

RECOMMENDED ENGINEER DATE

APPROVED DIV. ENGR. DATE

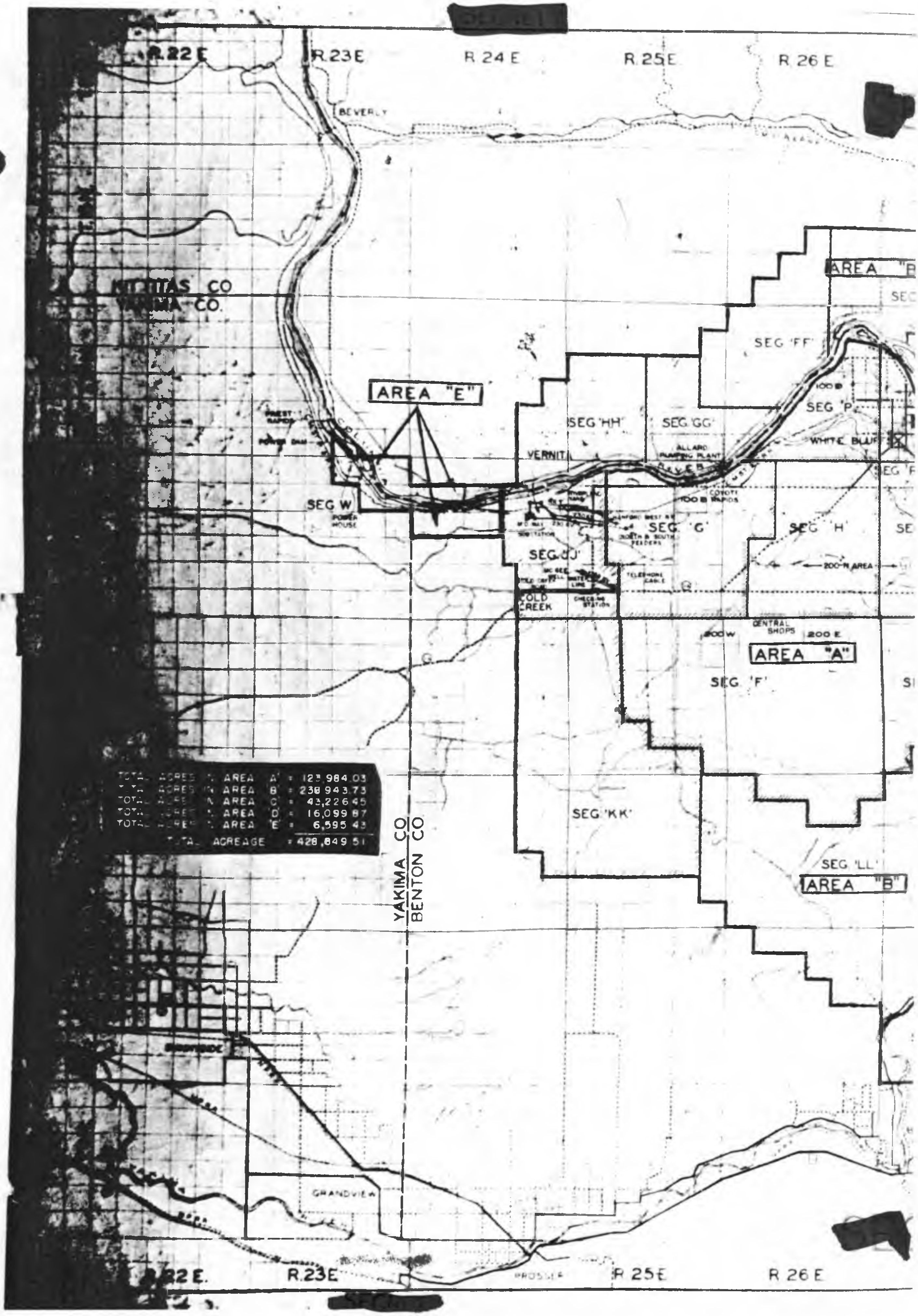
COMPILED TRACED CHECKED

REVISIONS

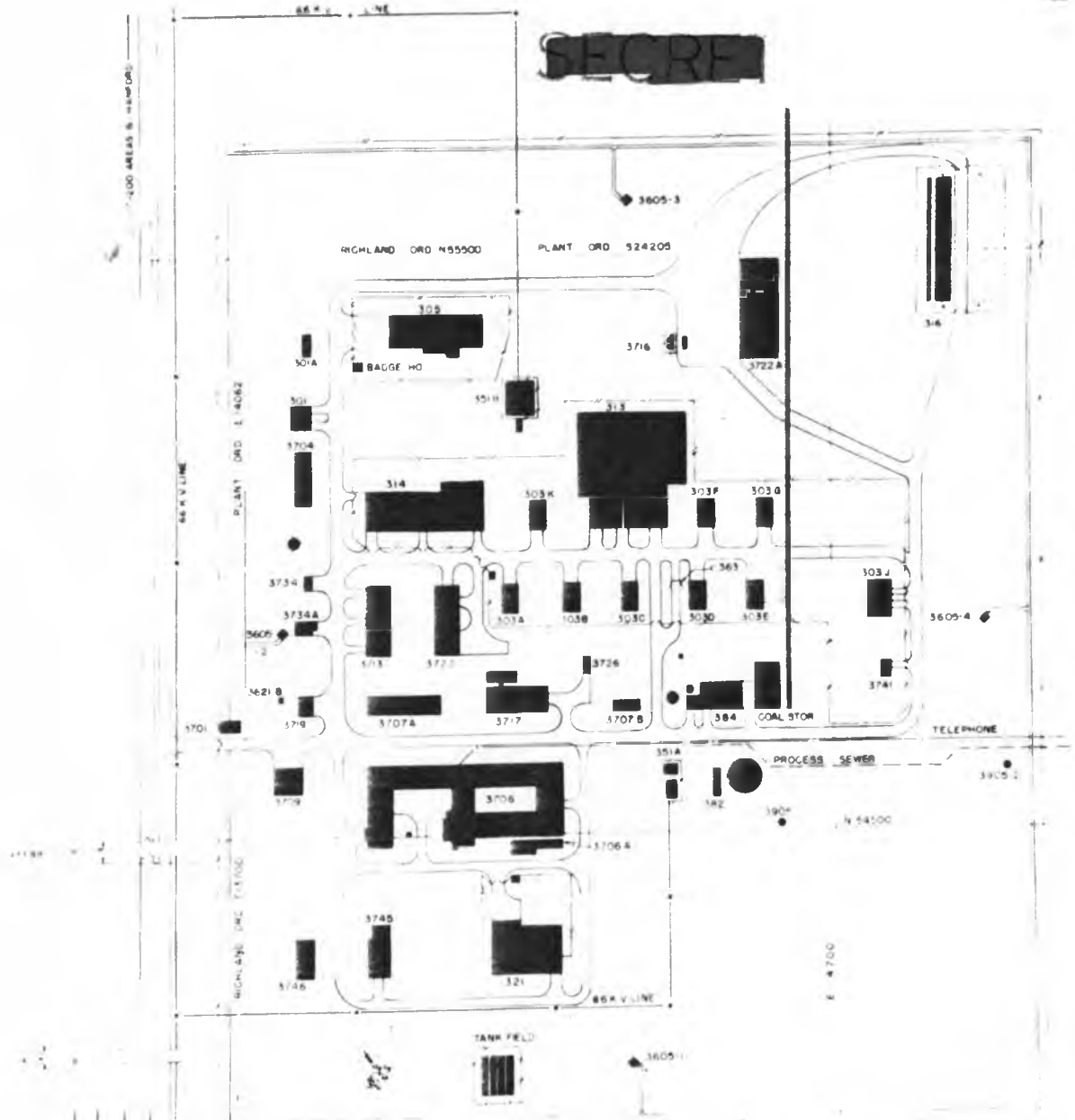
AREA B&C REVISED

DRAWING NO.

CR-FORM


R.22 E
R.23E
R 24 E
R.25E
R 26 E
BEVERLY
KITTITAS CO
YAKIMA CO.
AREA "E"
AREA "B"
SEG 'FF'
SEG 'P'
SEG 'HH'
SEG 'GG'
VERNITA
WHITE BLUFFS
RIVER
SEG W
POWER HOUSE
100 B
100 D
COYOTE RAPIDS
SEG 'G'
SEG 'H'
SEG 'JJ'
COLD CREEK
200 W
CENTRAL SHOPS
200 E
AREA "A"
SEG 'F'
TOTAL ACRES IN AREA 'A' = 123,984.03
TOTAL ACRES IN AREA 'B' = 238,943.73
TOTAL ACRES IN AREA 'C' = 43,226.45
TOTAL ACRES IN AREA 'D' = 16,099.87
TOTAL ACRES IN AREA 'E' = 6,595.43
TOTAL ACREAGE = 428,849.51
SEG 'KK'
SEG 'LL'
AREA "B"
YAKIMA CO
BENTON CO
GRANDVIEW
PROSSER
R.22E.
R.23E
R 25E
R 26 E

"See App. D 35 for identification."



300 AREA

PLOT PLAN

OF

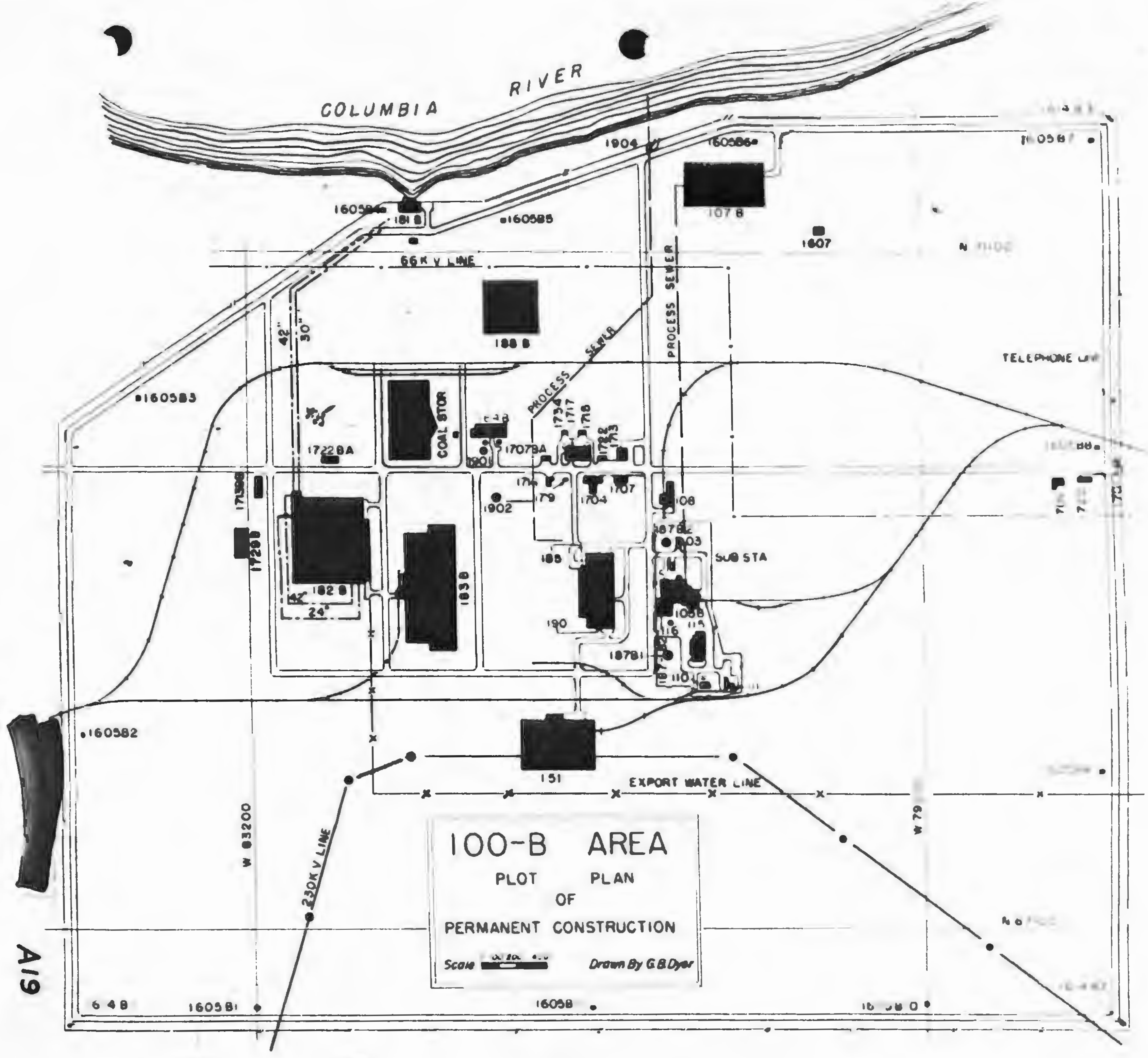
PERMANENT CONSTRUCTION

A17

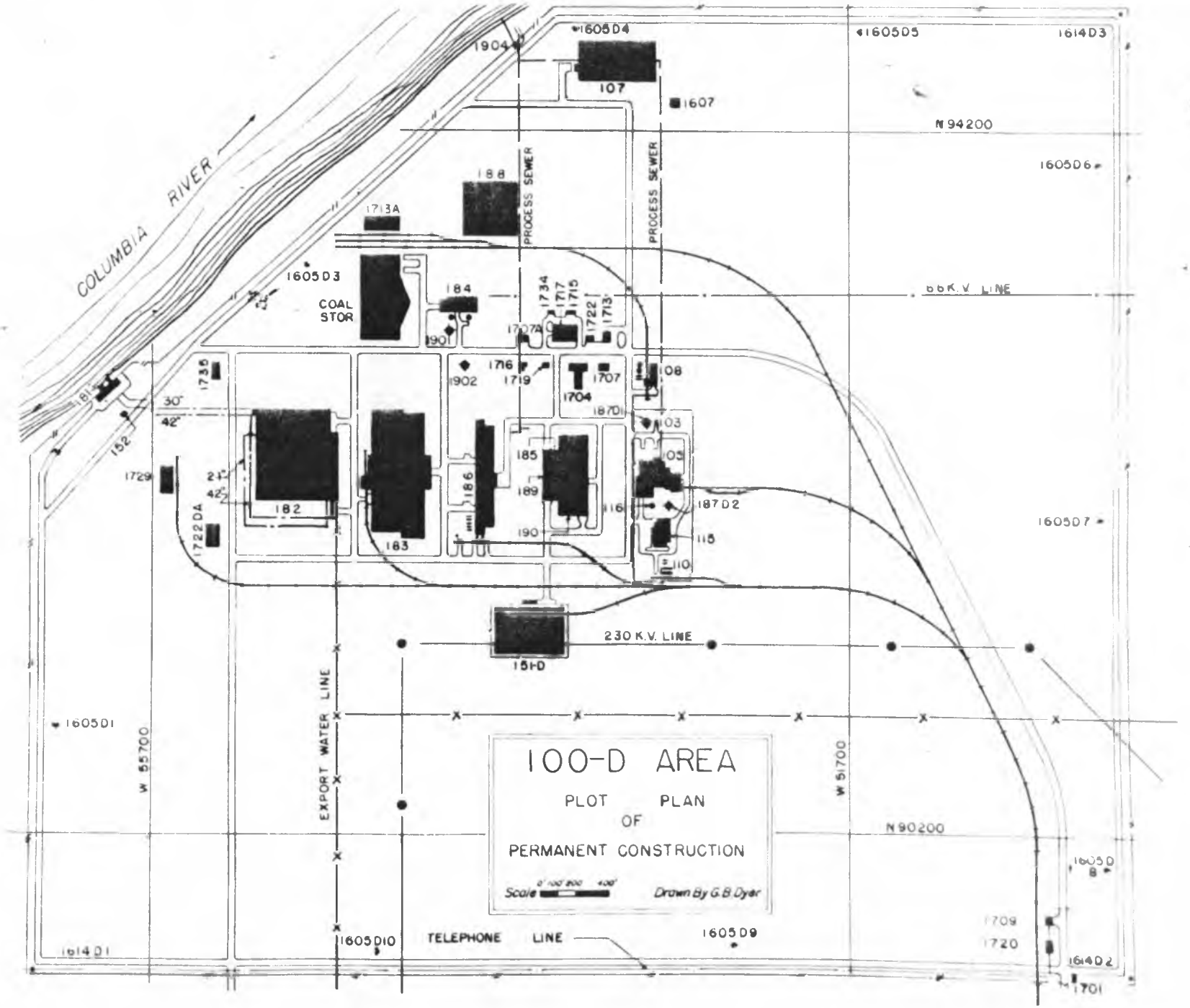
H.E.W-9536

CO-ORDINATE SYSTEMS

[redacted]


COLUMBIA RIVER
100-B AREA
PLOT PLAN
OF
PERMANENT CONSTRUCTION
Scale
Drawn By G.B.Dyer
66 K V LINE
230 K V LINE
EXPORT WATER LINE
PROCESS SEWER
PROCESS SEWER
TELEPHONE LINE
COAL STOR
SUB STA
107 B
181 B
188 B
182 B
183 B
151
1607
1904
1902
190
185
1722 BA
1707 BA
1734
1717
1718
1704
1707
179
108
103
105 B
116
115
110
160581
160582
160583
160584
160585
160586
160587
16058
W 83200
42"
30"
24"

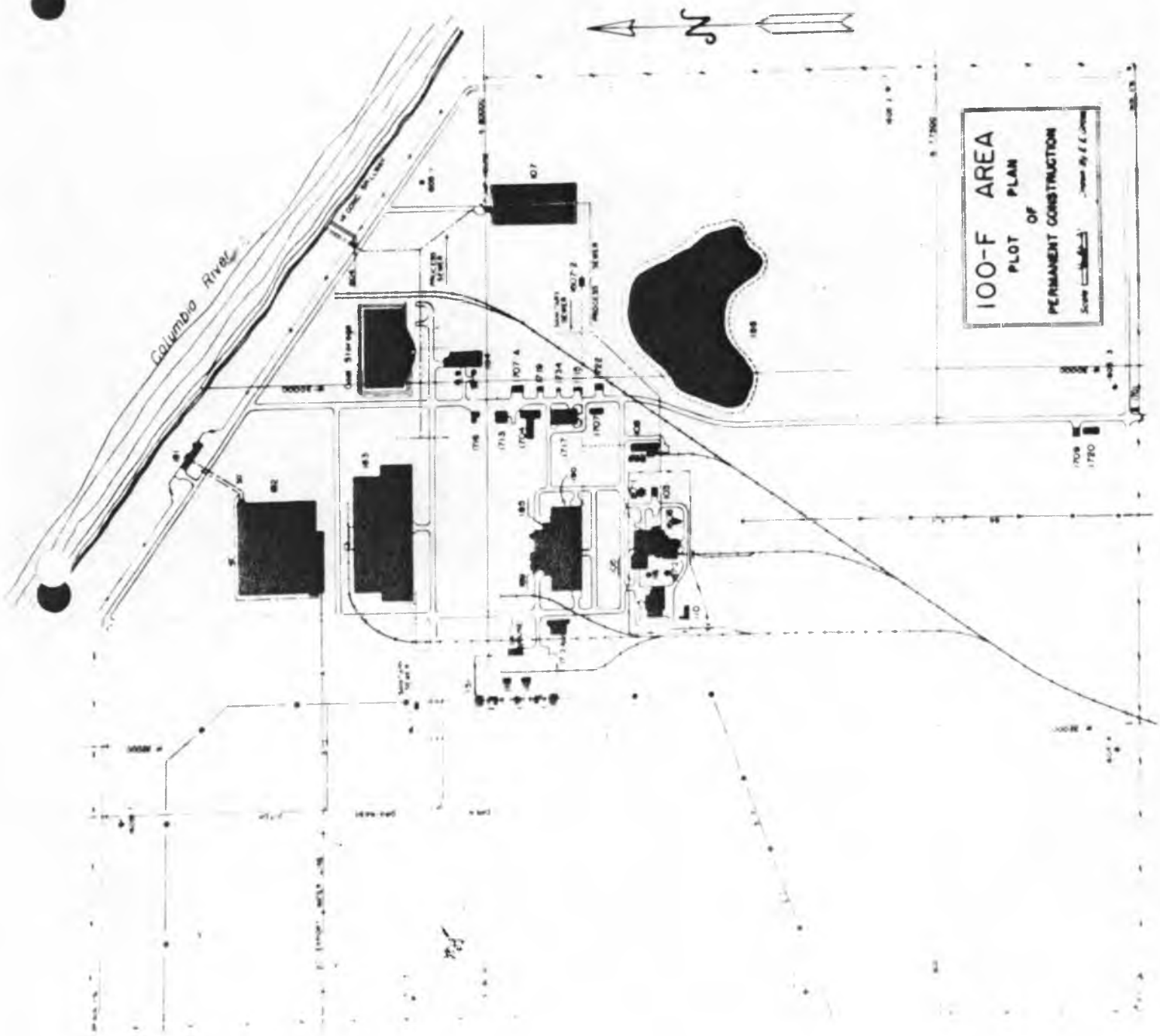
A19


COLUMBIA RIVER
1904
1605D4
1614D3
1605D5
107
1607
N 94200
1605D6
188
PROCESS SEWER
PROCESS SEWER
1713A
1605D3
COAL STOR
184
66K.V. LINE
1734
1717
1715
1722
1713
1902
1716
1719
1707
1704
108
1870
103
105
185
189
186
190
182
183
1729
1722DA
1735
30'
42'
152
181
1870D2
115
110
230 K.V. LINE
151D
1605D1
W 55700
EXPORT WATER LINE
W 51700
N 90200
100-D AREA
PLOT PLAN
OF
PERMANENT CONSTRUCTION
Scale
Drawn By G.B.Dyer
1605D8
1709
1720
1614D2
1701
1605D10
TELEPHONE LINE
1605D9
1614D1

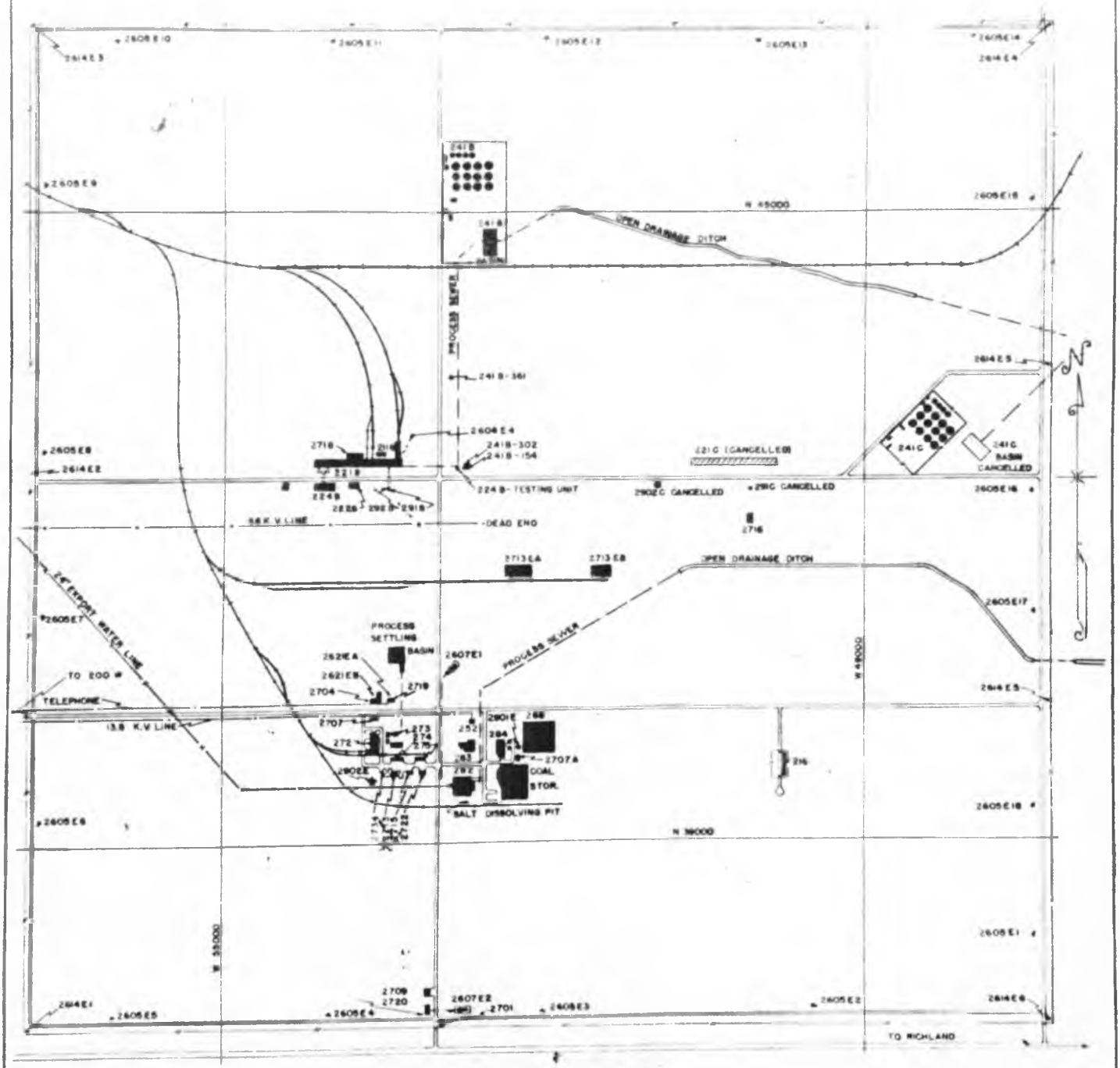
A20

* See App. D [illegible]

[redacted]



"See App. B-3 for identification

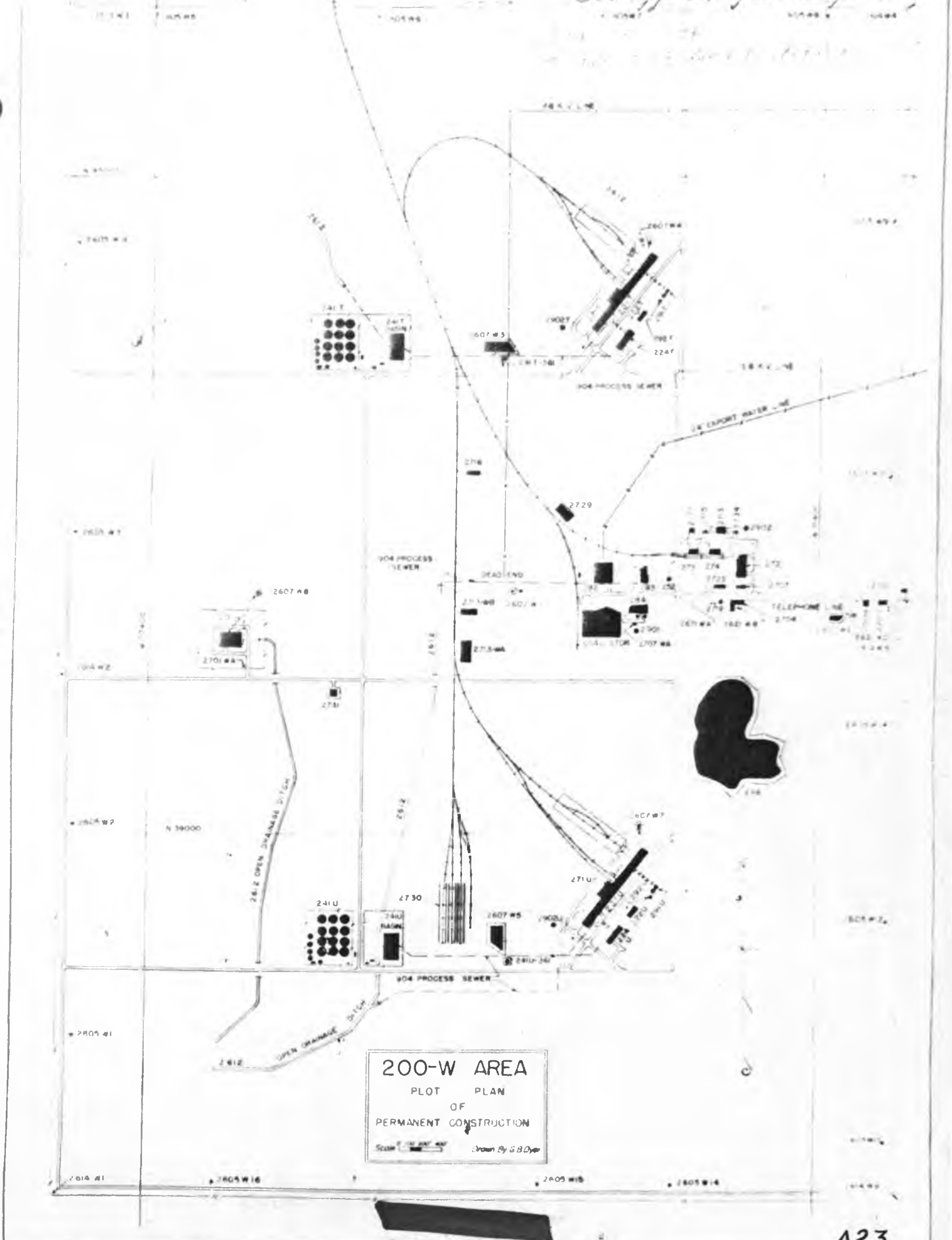


200-E AREA
PLOT PLAN
OF
PERMANENT CONSTRUCTION

[redacted]

A22

" See App. 343, for identification "

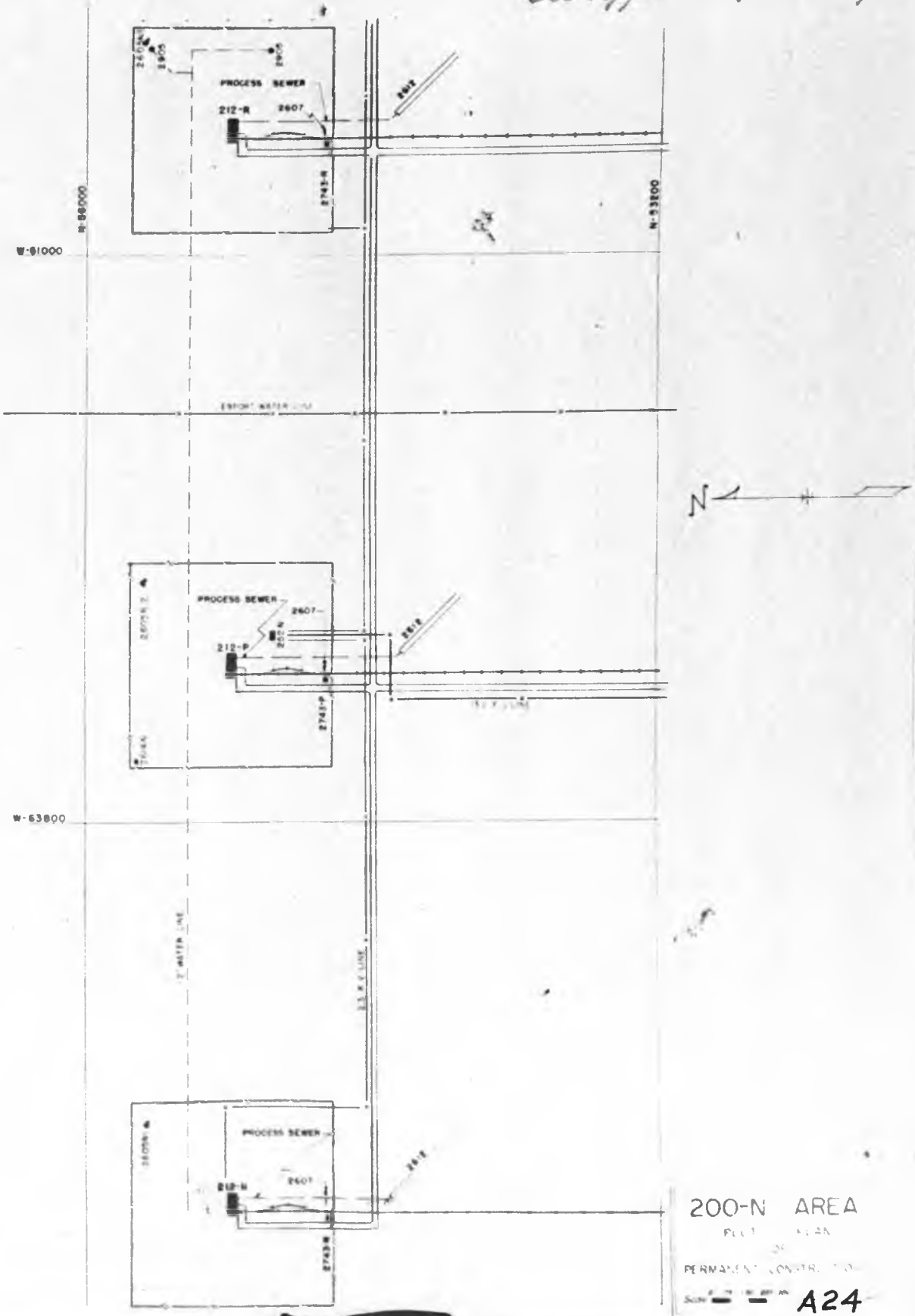


[redacted]

A23

SECRET [Add. note ref. to App. B43]

"See App. B43 for identificati

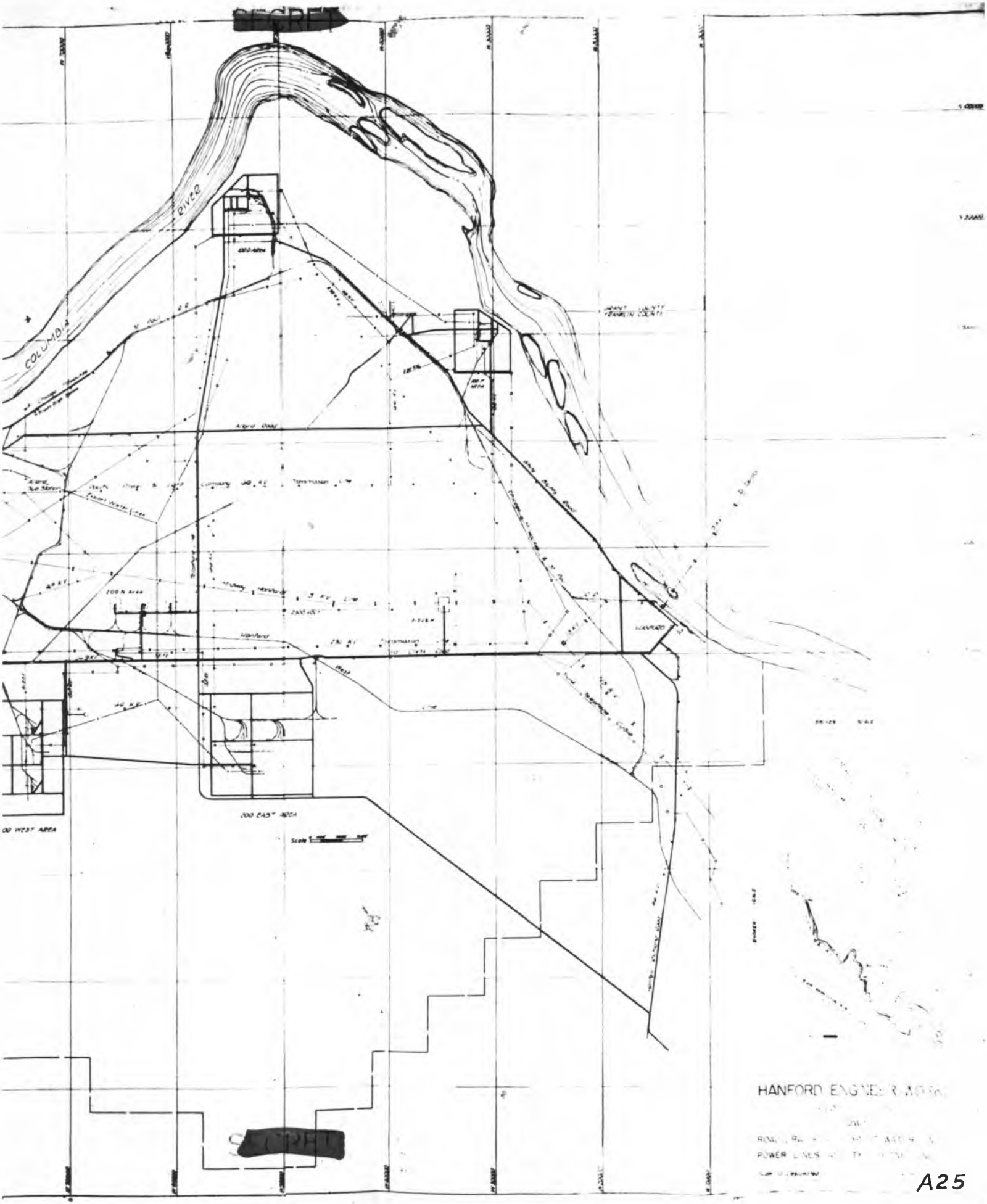


200-N AREA

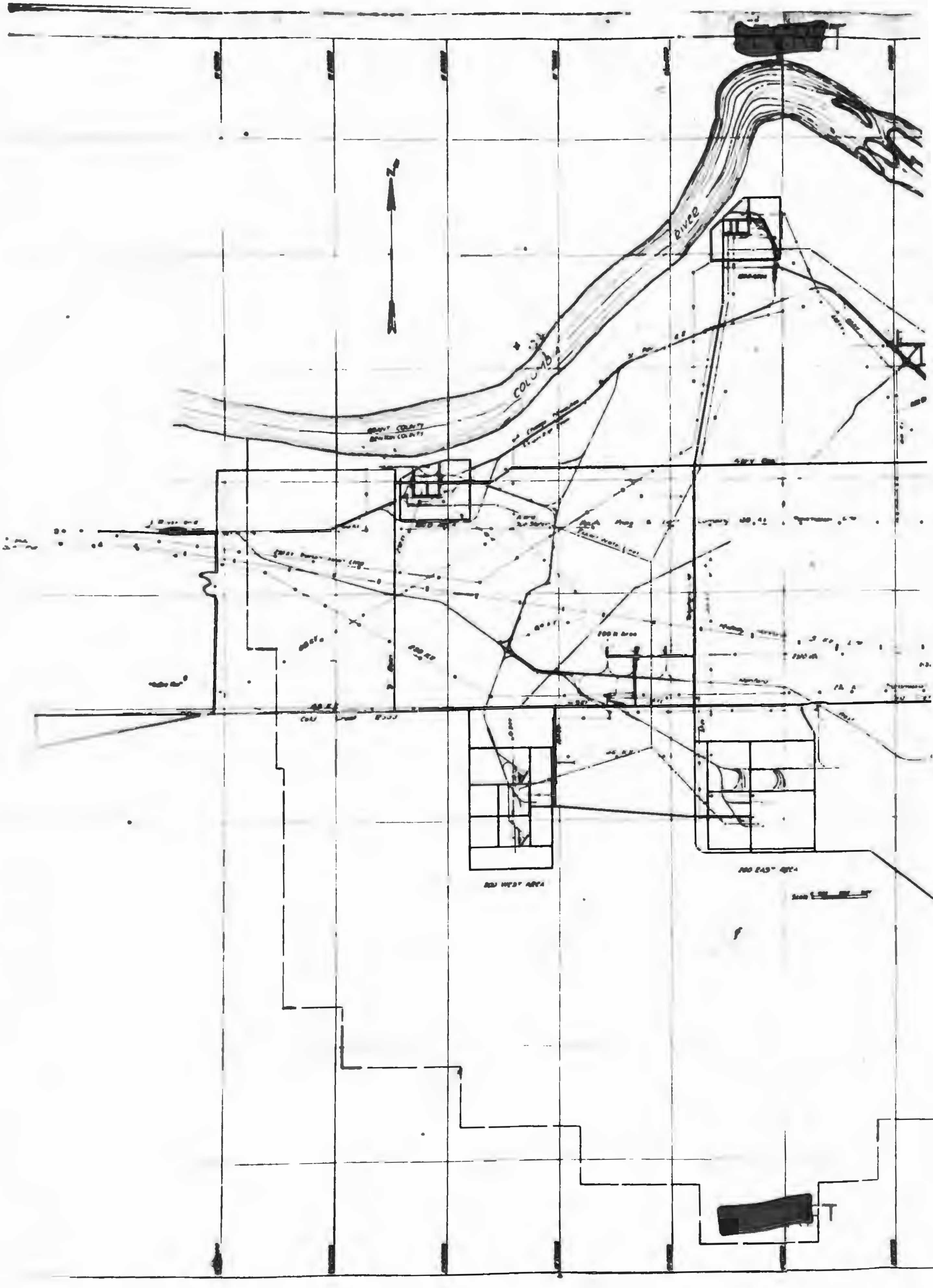
PERMANENT CONTROL

A24

[redacted]


SECRET
COLUMBIA
RIVER
100 EAST AREA
HANFORD ENGINEER WORKS
SECRET

A25


COLUMBIA
River
GRANT COUNTY
BENTON COUNTY
200 WEST AREA
200 EAST AREA

RICHLAND AREA

KEY

- Original Existing Buildings
- Under Construction
- 100 % Complete
- Prefabricated House Locations & Constr Progress

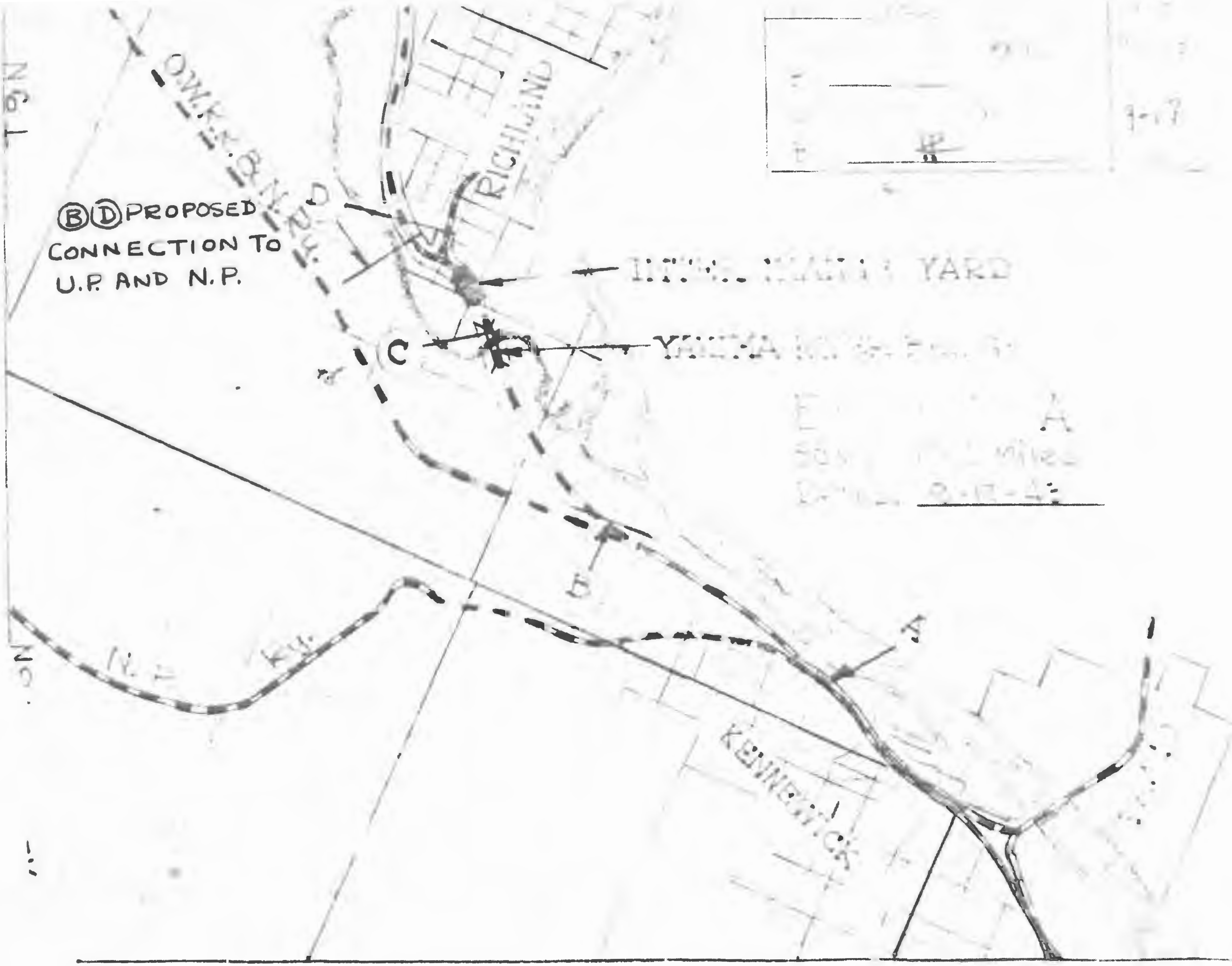
[redacted]

A26

N
COLUMBIA
GEORGE WASHINGTON WAY
TELEPHONE LINE
BLVD
SWIFT
CHURCH NO. 2
WILLIAMS
SYMONS
TORBETT
VAN GIESEN
WILSON
FARRELL LANE
STEVENS
MARSHALL
McPHERSON
THAYER
KIMBALL
GOETHALS
PERKINS
POTTER
BUS TERMINAL
66 K.V. LINE
AIRPORT
BROKEN SCALE

SWIFT BOULEVARD
KNIGHT STREET
STEVENS DRIVE
GOETHALS DRIVE
FLAGLER AVENUE
LOCKWOOD STREET
SWIFT DRIVE
SCRAP YARD
STORE YARD
SWITCH STATION
GOVERNMENT CAR POOL
RICHLAND ORDINATE N 21500
PLANT ORDINATE S 17000
PLANT ORDINATE E 4000
RICHLAND ORDINATE E 4000
E 15400
N 20700
700 AREA
PLOT PLAN
OF
PERMANENT CONSTRUCTION

A27



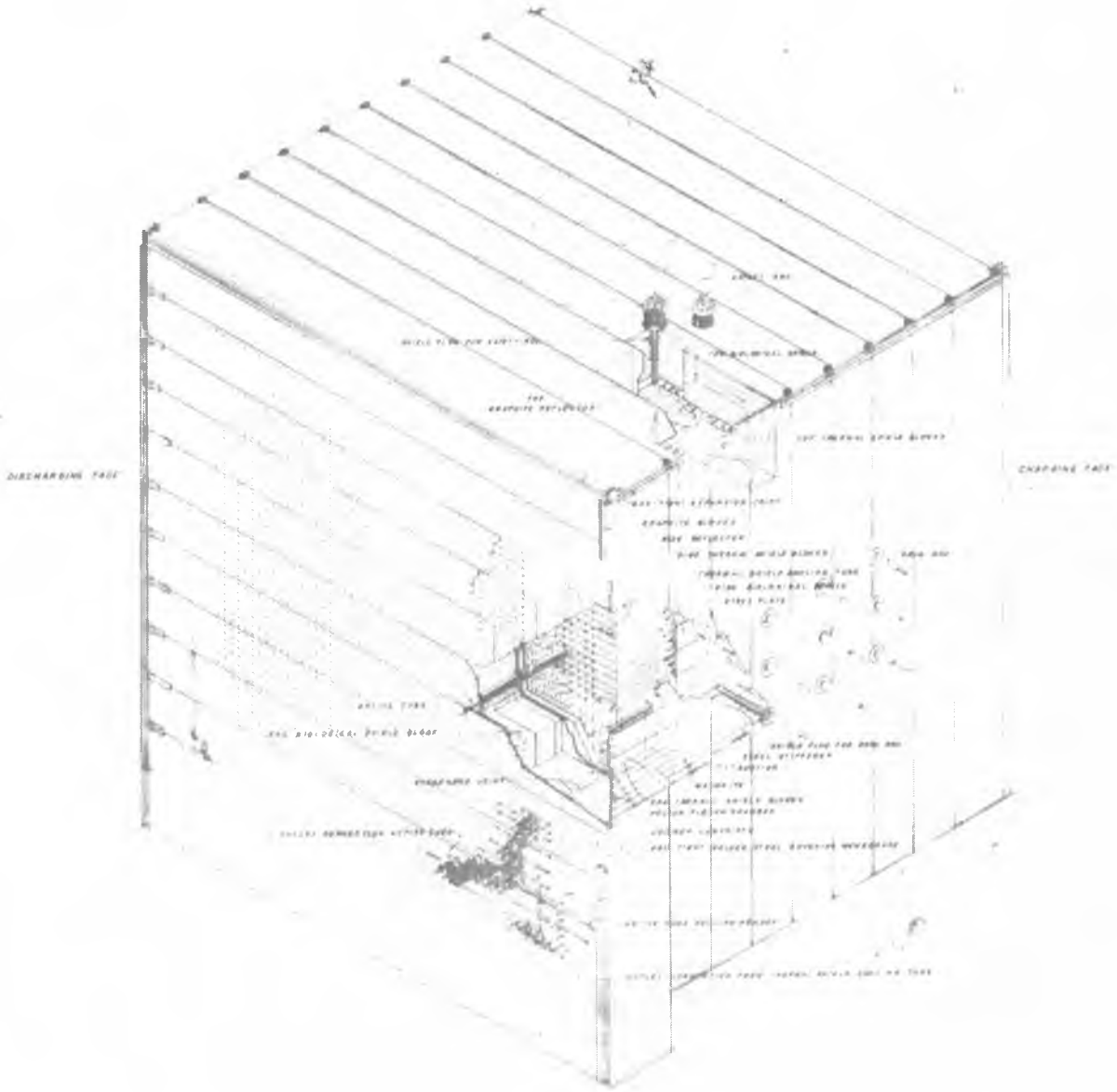
Ⓑ Ⓓ PROPOSED
CONNECTION TO
U.P. AND N.P.
O.W.R.&N. RY.
RICHLAND
YARD
C
B
A
KENNEWICK
N.P. RY.


TION
RIVER
YAKIMA
FRUITVA

T11N
T12N
R21E

[redacted]

PILE SHIELDING



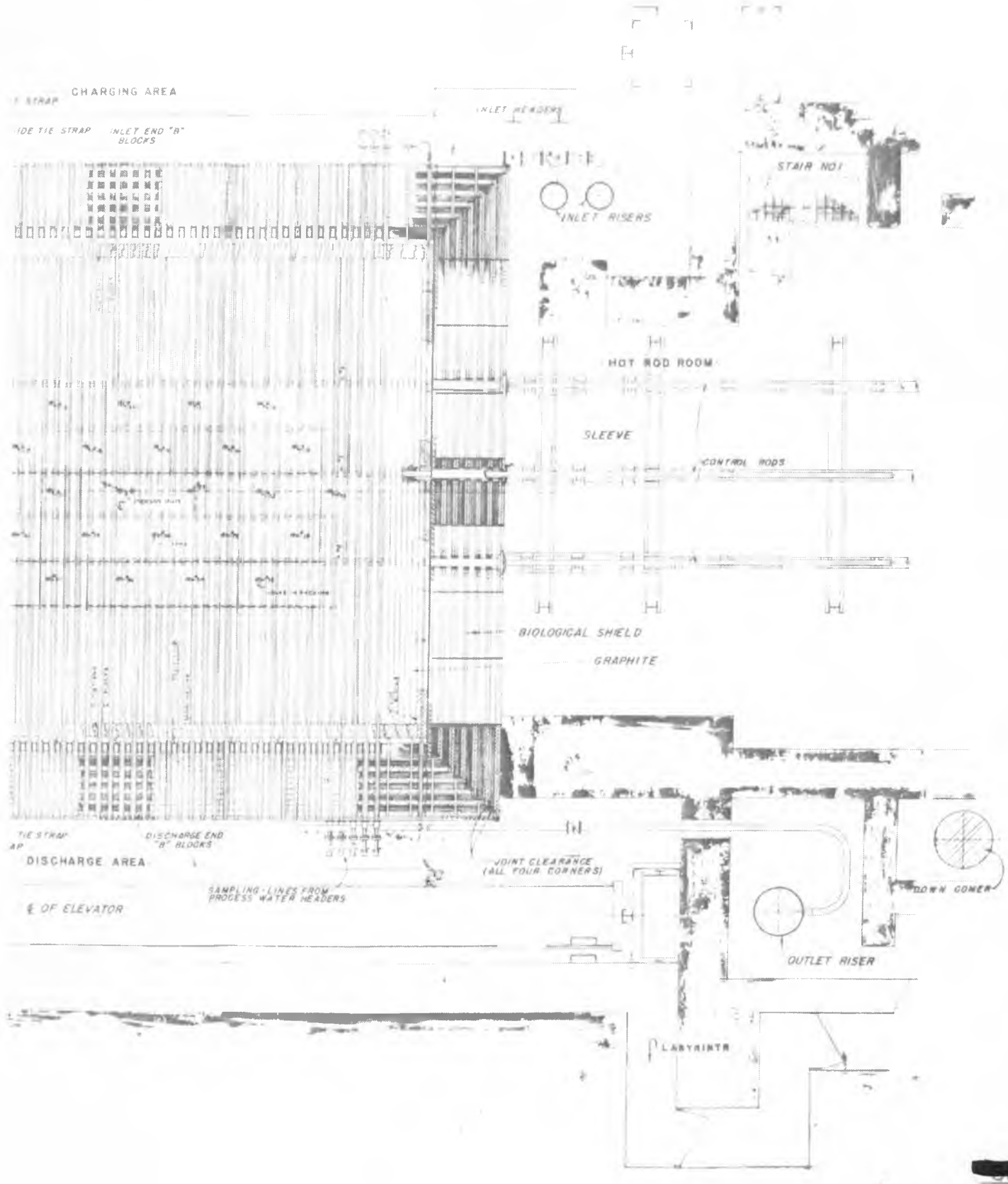
[redacted]

H-M-B-816-2

A29

[redacted]

ONAL VIEW OF PILE FROM TOP

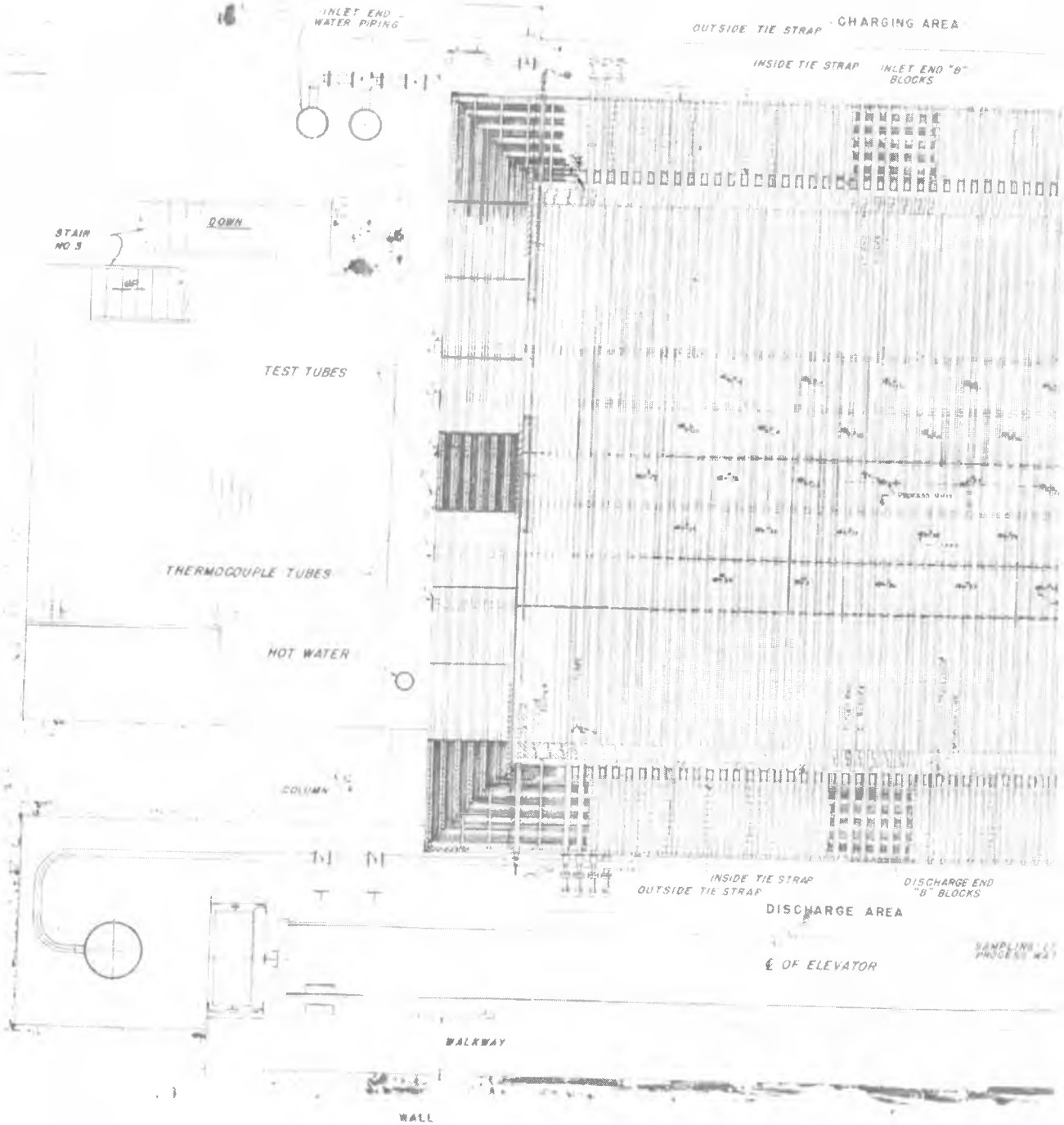


[redacted]

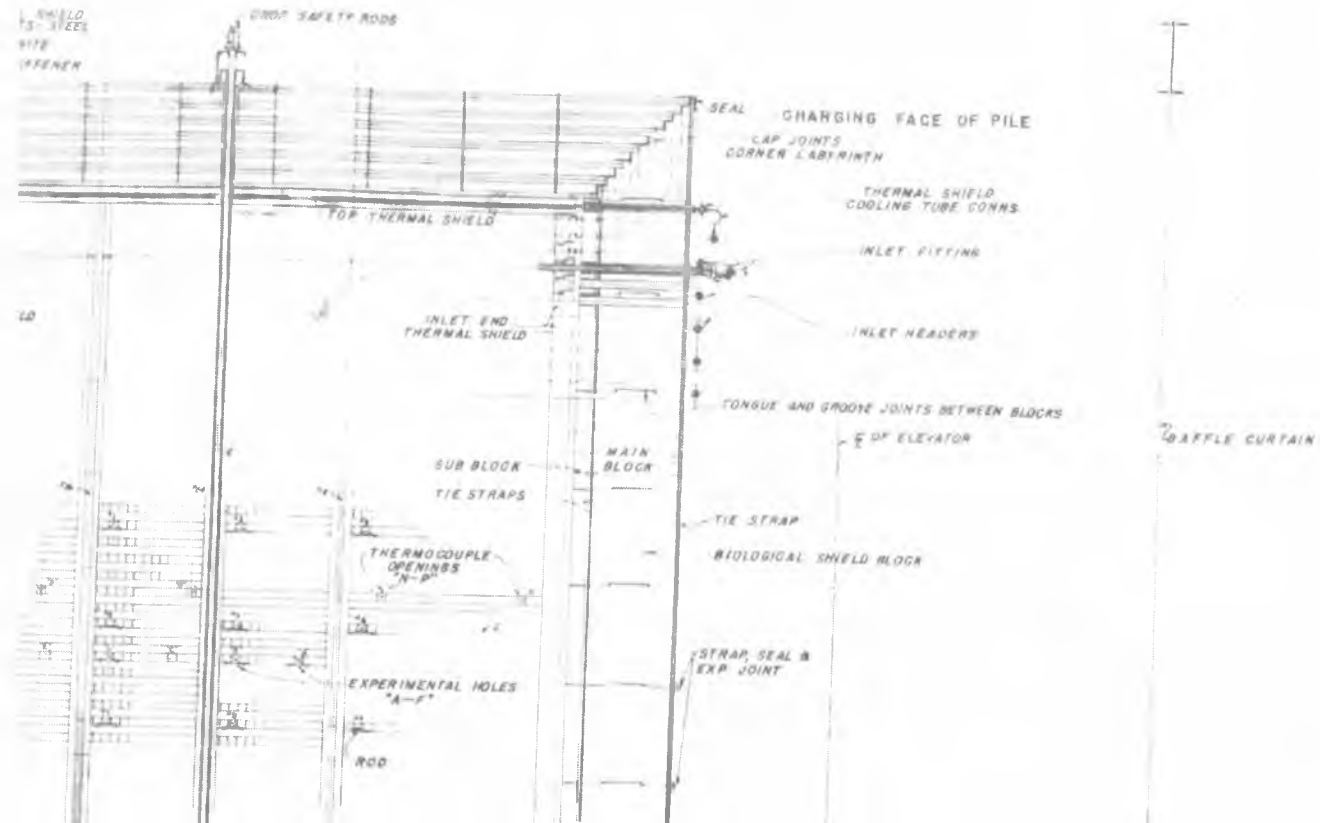
H-M-B-822-2

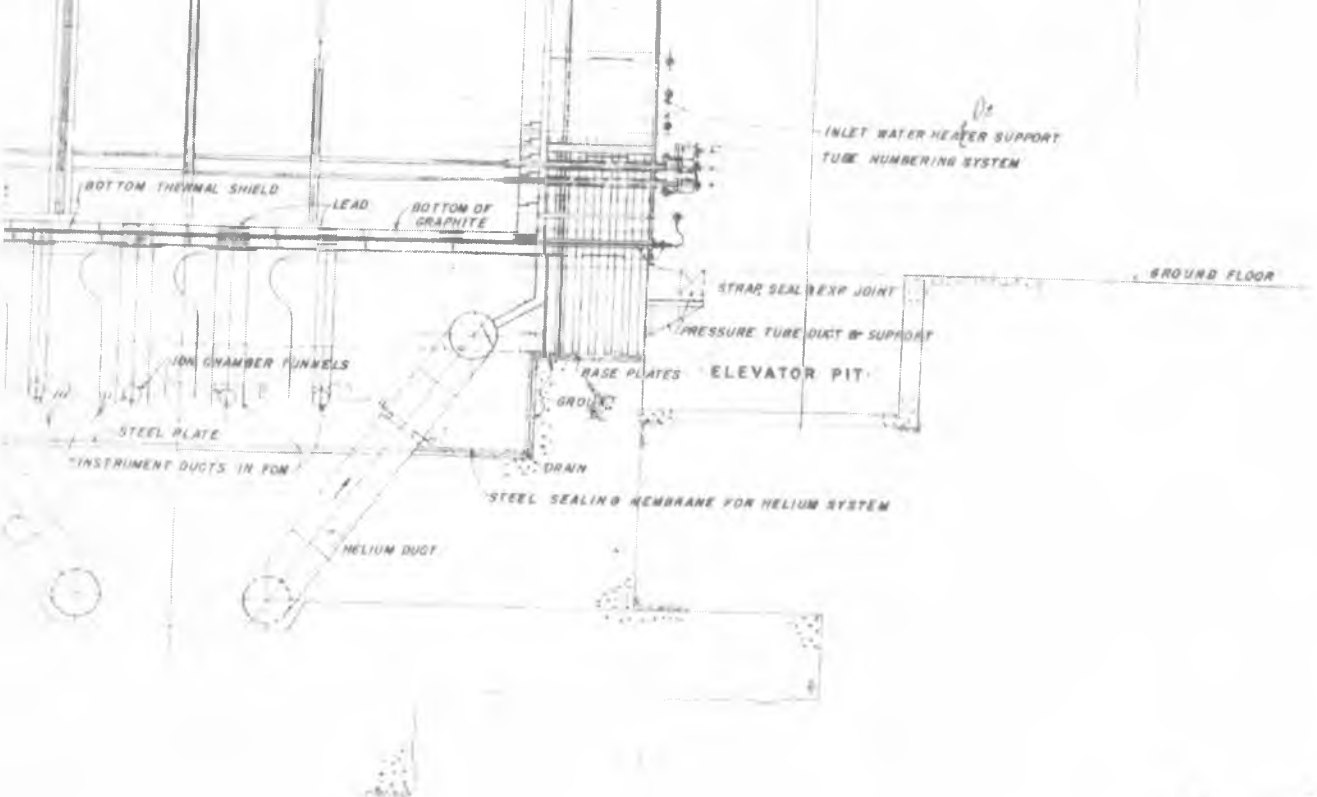
A30

SECTIONAL VIEW OF PIL



ONAL VIEW OF PILE FROM CONTROL ROD SIDE

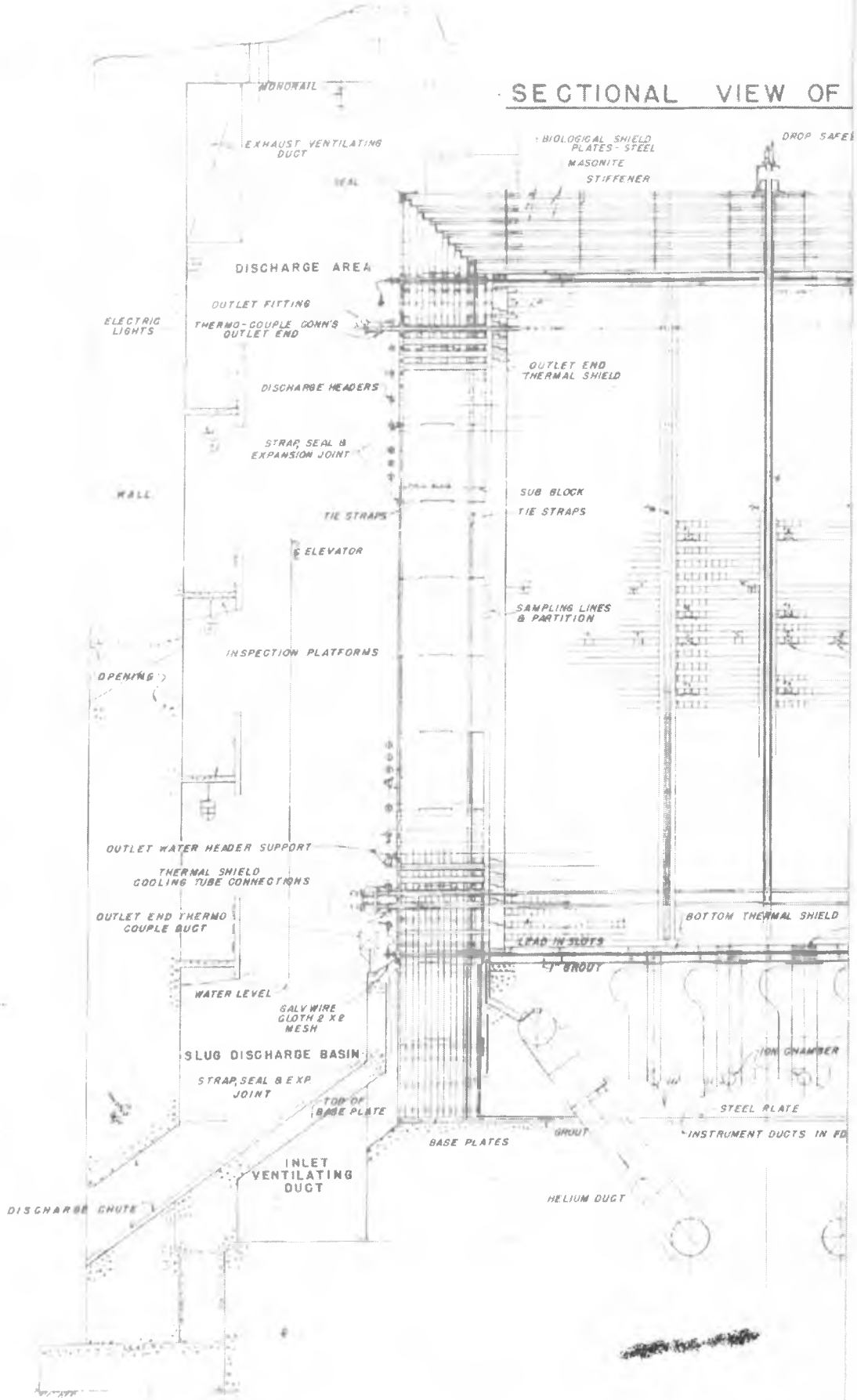




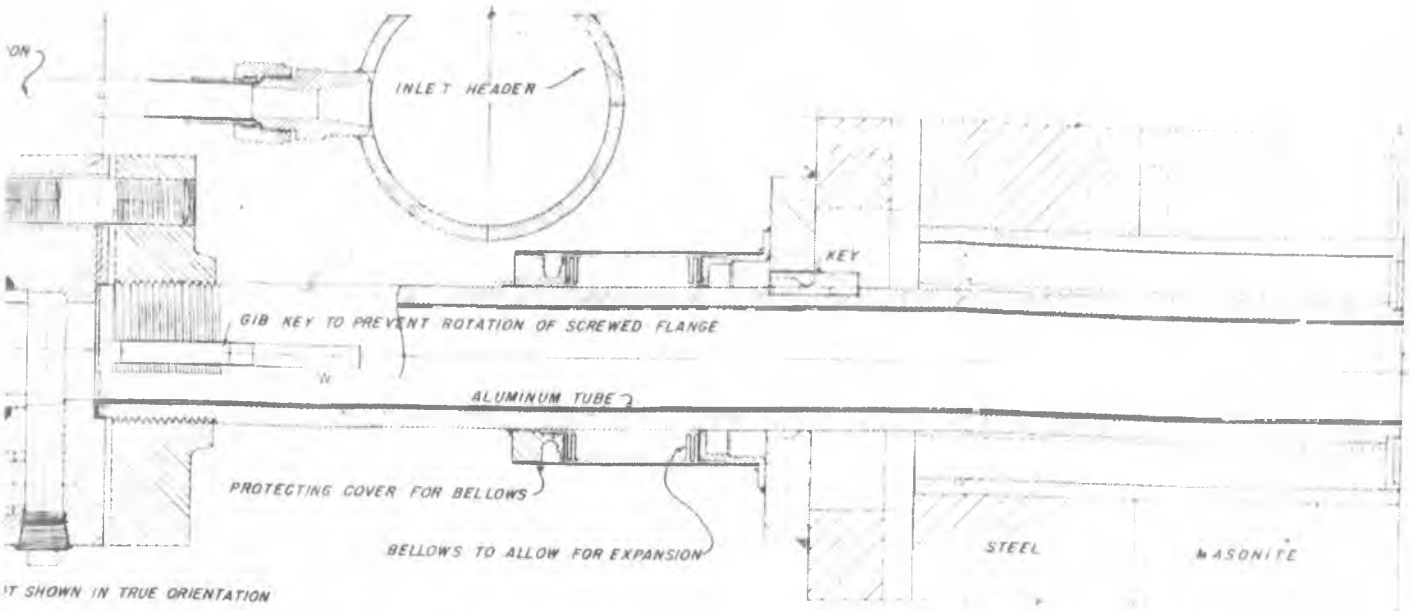
[redacted]

H-M-B-921-1

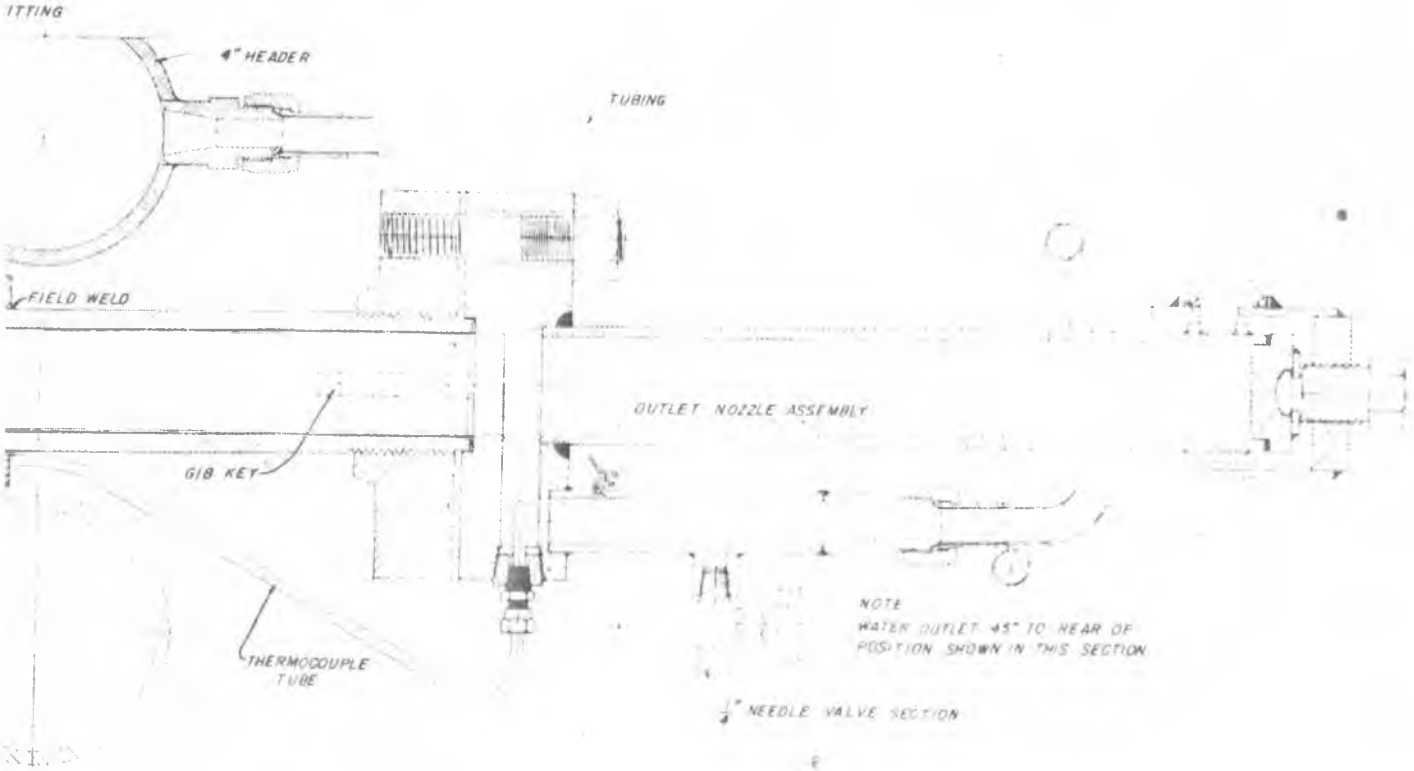
A31


SECTIONAL VIEW OF
MONORAIL
EXHAUST VENTILATING DUCT
SEAL
BIOLOGICAL SHIELD PLATES - STEEL
MASONITE
STIFFENER
DROP SAFE
DISCHARGE AREA
OUTLET FITTING
ELECTRIC LIGHTS
THERMO-COUPLE CONN'S OUTLET END
OUTLET END THERMAL SHIELD
DISCHARGE HEADERS
STRAP, SEAL & EXPANSION JOINT
WALL
SUB BLOCK
TIE STRAPS
TIE STRAPS
ELEVATOR
SAMPLING LINES & PARTITION
INSPECTION PLATFORMS
OPENING
OUTLET WATER HEADER SUPPORT
THERMAL SHIELD COOLING TUBE CONNECTIONS
OUTLET END THERMO COUPLE DUCT
BOTTOM THERMAL SHIELD
LEAD IN SLOTS
1" GROUT
WATER LEVEL
GALV WIRE CLOTH 2 X 2 MESH
SLUG DISCHARGE BASIN
ION CHAMBER
STRAP, SEAL & EXP JOINT
TOP OF BASE PLATE
STEEL PLATE
GROUT
INSTRUMENT DUCTS IN FD
BASE PLATES
INLET VENTILATING DUCT
HELIUM DUCT
DISCHARGE CHUTE

) OUTLET WATER FITTINGS



INLET TUBE SECTION



OUTLET TUBE SECTION

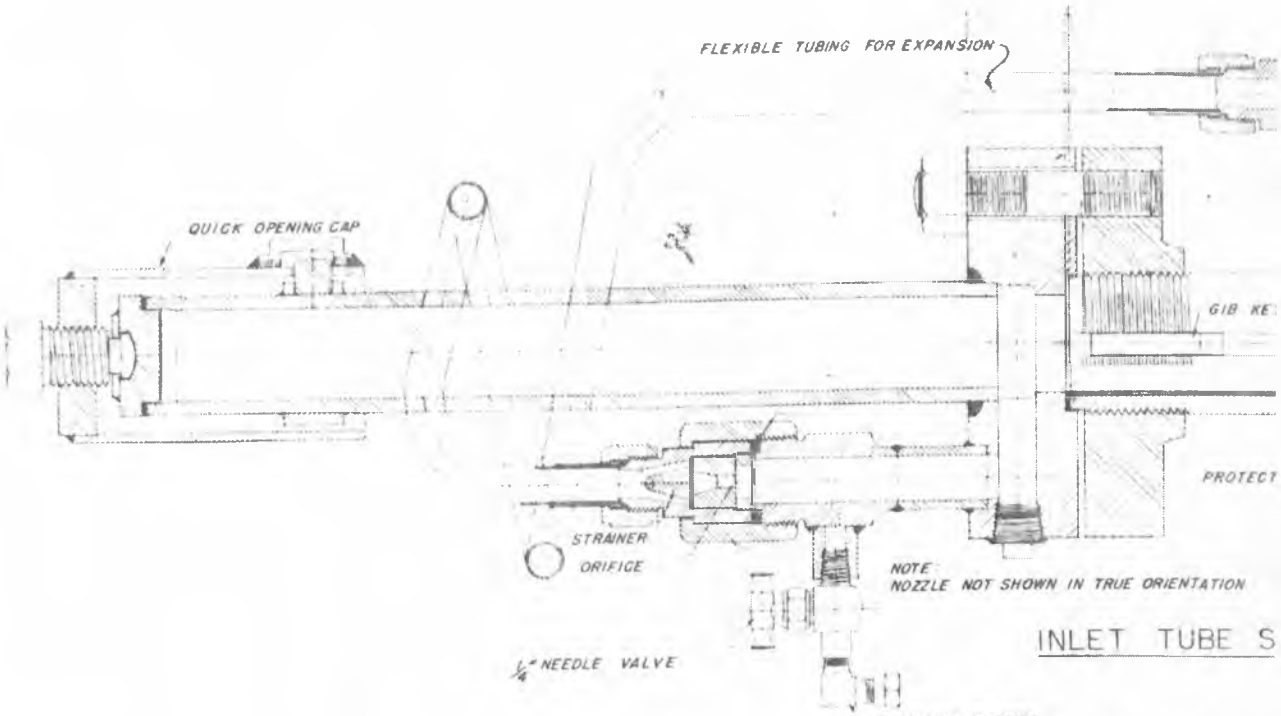
A32

[redacted]

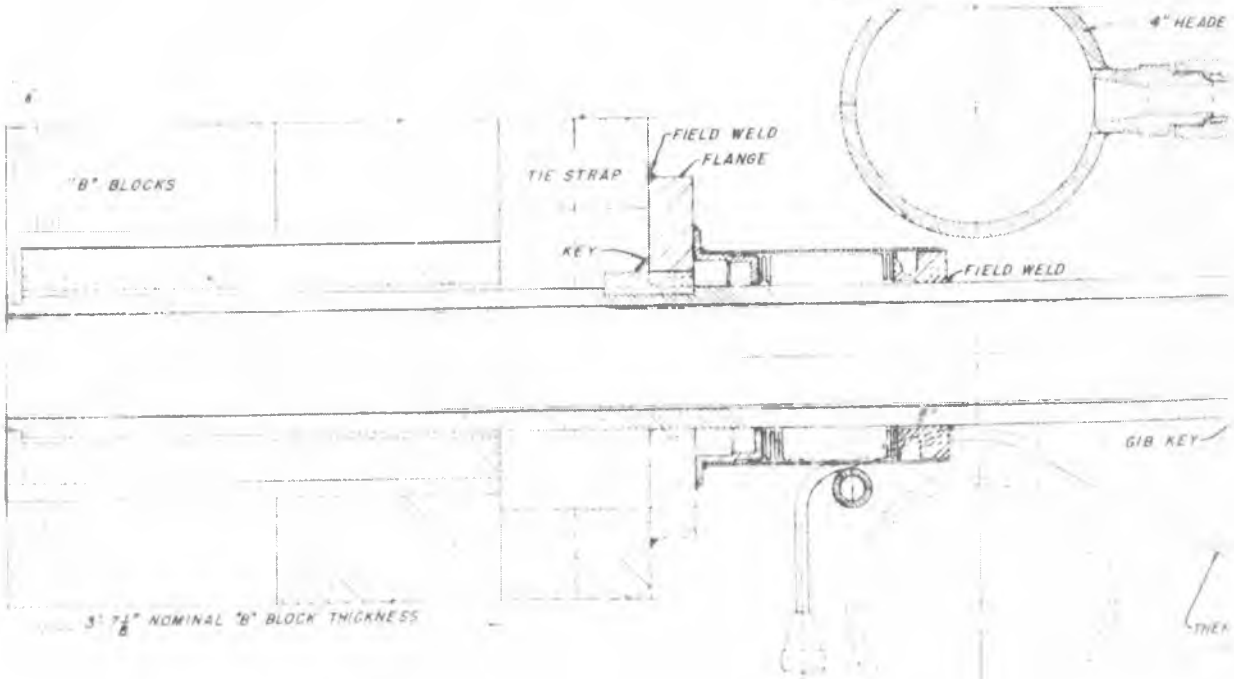
H-M-B-509-2

[redacted]

INLET AND OUTLET WAT



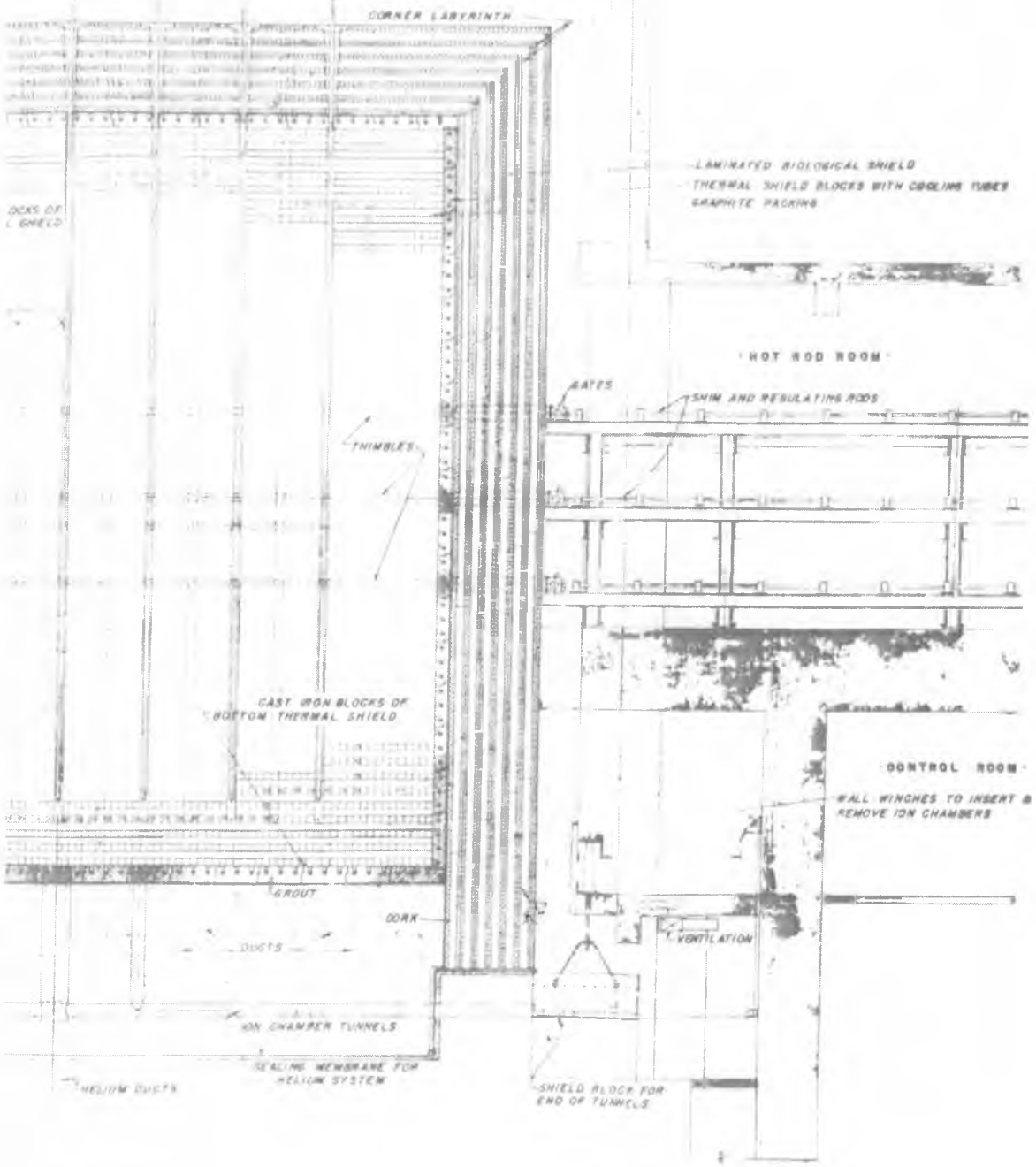
INLET TUBE S



OUTLET TUBE

[redacted]

EW OF PILE FROM
GE END



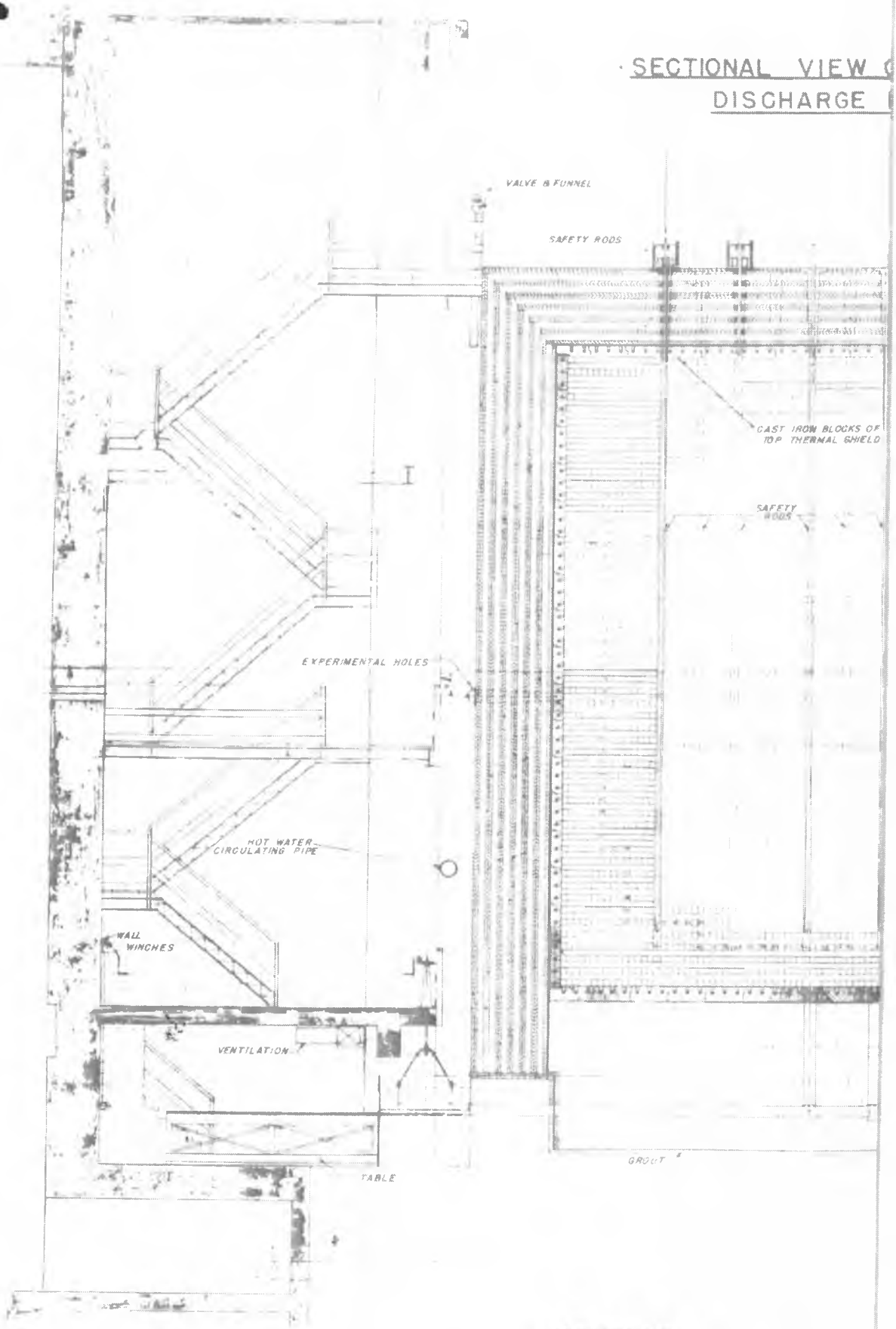
[redacted]

H-M-B-820-1

A33

[redacted]

SECTIONAL VIEW
DISCHARGE



[redacted]

APPENDIX A 34

AERIAL VIEW OF HANFORD CAMP

[redacted]

APPENDIX A 86

AERIAL VIEW OF MEN'S AND WOMEN'S BARRACKS

The men's barrack units at the left of the photograph were "H"-shaped with four separate wings, one utility room, and four shower rooms (one shower room for each individual wing). The shower rooms and utility room formed the cross-bar of the "H."

The physical measurements for a single wing were 192' long by 30' wide, having one hall, 5' wide, running the entire length and a hall at one end connecting with the attached shower and utility room. The over-all dimensions of a barrack unit were 334' long by 110' wide. Every barrack unit included four separate shower rooms, one designated for each of the wings. Physical dimensions of the shower rooms were 55' long by 14' wide and standard equipment included six lavatories, five showers, five toilets, and three urinals.

The women's barrack units at the right of the photograph were "H"-shaped with two separate wings ("A" and "B") having the same number of rooms and idential layout. The washroom, one for both wings, formed the cross-bar of the "H" and had a laundry room attached to one end and a utility heater room to the other. Physical over-all measurements for a women's barrack unit were 147' long by 111' wide. A single wing measured 147' long by 30' wide, with a hall 5' wide extending the entire length and connecting, approximately at the center of the wing, to another hall forming a "T" which led into the attached washroom. Two doors, one at each end of the main corridor, opened to the outside.

In the foreground are the Administration Building on the left and the Hospital on the right.

[redacted]

AERIAL VIEW OF HUTMENTS

This view shows a portion of Hutments erected (foreground) with the single units at the extreme left and the double units occupying the space to the right. In the background are the mess barracks and these extend to the right of the photograph.

Hutments were erected in blocks of twenty 40-foot units, each housing 11 men; single units (40' by 16') bordered the outside row of bathhouses (nearest the main thoroughfares) and double units (80' by 16') between each row of bathhouses. Huts were spaced twenty feet apart, ten to a row with rows forty feet apart. Each bathhouse served the ten adjacent units on the north side and ten adjacent units on the south side.

The "Temperate Design" of the "Pacific" hut was selected, as the local semi-desert climate did not require the heavier-insulated type. These huts were semi-cylinderical in shape, having self-supporting side walls and roofs made up of four-foot wall sections bolted together. A single hut had one door and two windows at each end, as well as two windows on each side. A double hut had one door at each end but had four windows on each side. Wooden louver transoms were built over all outside doors.

The physical measurements, general layout and design of hutment bathhouses were the same as those of the combined shower and utility room provided for a single barrack, with a few minor revisions. A bathhouse served 440 men. Two janitor's closets, each 4' 6" by 4' 6", for the storage of supplies were installed in opposite shower rooms; and the size of the janitor's closet in the utility room was increased to 10' 4" by 5' 4". Vestibules (4' 4" by 4' 8") were constructed at the outside entrance to each shower room.

APPENDIX A 37

AERIAL VIEW OF HANFORD TRAILER CAMP


P 6148

APPENDIX A 36

TYPICAL TRAILER CANOPY

TYPICAL TRAILER CAMP BATHHOUSE

A total of 139 bathhouses of similar design were constructed for the use of the entire trailer population. All but two of these were built in the white trailer camps. Bathhouses were erected in the center of lots measuring 52' wide by 80' deep and in rows with a separate row to every other section. A single bathhouse served an average of twenty-six families and the physical measurements were 30' wide by 34' long containing men's and women's shower and toilet rooms, laundry room, utility room, janitor's closet and hallways. Bathhouses were always oriented with the laundry rooms opposite the clothes drying lots for convenience. Men's and women's shower rooms had approximately the same floor area, and each was fitted with four showers and three lavatories in addition to four water closets and a urinal in the men's rooms and three water closets in the women's rooms.

All bathhouses were equipped with 2½-gallon soda acid fire extinguishers conveniently located on the street side of the bathhouse wall. These extinguishers were for emergency use and supplemented the underground fire system which covered each camp.


21

APPENDIX A 40

TYPICAL TRAILER CAMP PLAYGROUND

A total of 39 lots was set aside in the seven trailer camp areas for children's playgrounds in addition to the two larger parks and playgrounds located at the northeast and northwest corners of the main trailer camp area. Of this total, one was located at the west end of the colored trailer camp and four in Trailer Camp No. 6. Playground lots were surrounded by wooden picket fences, and contained swings, sandboxes, and teeter-totter boards.

[redacted]

TYPICAL MESS HALL

Eight mess halls were constructed at central locations in the Hanford Camp Area, and were generally identical in size, shape, and construction except Mess Hall #1 which had a 48' lean-to extension on the east end of the building to house the main offices of the Olympic Commissary Company. A typical mess hall was 176' wide by 270' long (over-all), with each dining room being approximately 120' wide by 160' long and the kitchen portion being 40' wide by 120' long.

Mess halls were one-story, wood frame structures, rectangular-shaped with two dining rooms, one to each side of the central kitchen portion. Each mess hall originally was designed to feed 4000 people (requiring two complete settings); later enlargements increased the seating capacity and numerous revisions were made to improve the operating efficiency. At the completion of the changes, an average mess hall seated approximately 2600.

[redacted]

APPENDIX A 42

LAUNDRY, PRESSING, GARMENT ALTERATIONS

and LADIES READY-TO-WEAR SHOP


HOLLYWOOD
SHOPPE
D-3325

APPENDIX A 43

WESTERN UNION OFFICE

WESTERN UNION

APPENDIX A 44

MEN'S CLOTHING STORE


MENS
Clothing
Men's
Clothing

APPENDIX A 45

OPTOMETRIST SHOP

Optometrist

APPENDIX A 46

JEWELRY SHOP

APPENDIX A 47

SEARS ROEBUCK STORE

APPENDIX A 48

SHOE REPAIR SHOP


SHOE REPAIR
PREVENT
HOURS
D-229
11-8-43

APPENDIX A 49

HANFORD GARAGE

COMBINED STORES BUILDING (GROUP NO. 2)

Two one-story, wood frame, T-shaped shed-type structures were erected in the Camp Area for the purpose of housing jointly more than one commercial facility. The original, or No. 1, unit was constructed on the Hanford Shopping Circle and housed a Drug Store, Barber Shop, Beauty Parlor, and a Notary Public Office. (At one time Western Union occupied the latter office space.) A second, or No. 2, unit was constructed on the southwest corner of "C" Avenue and Fourth Street East to serve the workers living in that area, and housed a Drug Store, Barber Shop, and Beauty Parlor. These buildings were identical in size, shape, and type of construction except for the 30' extension which was later added to the end of the storeroom in order to provide more storage space for drug store supplies at unit No. 1. The storage room comprised the leg of the "T", and was situated directly behind the drug stores and also contained a 3-room apartment and bath in both units. A 3-room apartment and bath was provided in the rear of the beauty parlor in the No. 1 unit only. These apartments were provided as living quarters for the commercial operators. A soda fountain was installed along the front wall in Drug Store No. 1 only. The fountain equipment was furnished by the concessionaire.

Listed below are the floor areas allocated to the use of the commercial facilities located in the respective units:

Commercial Facilities	Combined Stores No. 1	Combined Stores No. 2
Drug Store	40' x 90'	40' x 90'
Beauty Parlor	31' x 40 *	32' x 40'
Barber Shop	16' x 40' (6 chairs)	32' x 40' (12 chairs)
Notary Public Office	13' x 35'	
Storage	40' x 75' *	40' x 45' *

* Includes 3-room and bath apartments.

APPENDIX A 51

SERVICE STATIONS


RICHFIELD

APPENDIX A 52

HANFORD BANK

D 2298

APPENDIX A 53

HANFORD THEATER


HANFORD

APPENDIX A 54

VALLEY THEATER

COMMISSARY BUILDING (No. 4)

Four large, wood frame, flat roof, buildings were erected at central locations in the Hanford Area. These buildings were known as Commissary No. 1 (White Men's Recreational Hall), Commissary No. 2 (Colored Recreational Hall), Commissary No. 3 (Women's Refreshment Center), and Commissary No. 4 (White Tavern).

Commissary No. 1. - This building was a one-story, wood frame, "U"-shaped structure having an overall dimension of 192' wide by 352' long. Commissary No. 1 had 50 rooms containing the following recreational facilities; pool and billiard parlor, beer parlor, card and pin ball machine room, sandwich bar, soda fountain and ice cream parlor, barber shop, canteen bar for the sale of tobacco, magazines, notions, candy, etc., and public telephone booths.

Commissary No. 2. - This building was a tavern for the colored population, and measured 192' long by 112' wide with a seating capacity of 508 patrons. It had sixteen rooms and served primarily as a canteen.

Commissary No. 3. - This building known as the White Women's Refreshment Center, is a one-story, wood frame building measuring 128' by 144'. One half consisted of a tavern, and the other half a soda fountain and "snack" bar.

Commissary No. 4. - This unit consisted principally of a tavern with a seating capacity of 530 persons and was constructed on the southeast corner of Fifth Street and "C" Avenue. This building was nearly the same size and arrangement as Commissary No. 2.


D-4264

APPENDIX A 56

AUDITORIUM and GYMNASIUM

APPENDIX A 57

HANFORD GRADE SCHOOL

APPENDIX A 58

HAMFORD DAY NURSERY

APPENDIX A 59

HANFORD ADMINISTRATION BUILDING (FOREGROUND)

AND HOSPITAL (CENTER)


P-3440

APPENDIX A 60

PUBLIC HEALTH AND INFIRMARY BUILDING

APPENDIX A 61

UNITED PROTESTANT CHURCH

APPENDIX A 62

CATHOLIC CHURCH TENT

APPENDIX A 63

FIRE STATION

APPENDIX A 64

PATROL HEADQUARTERS

APPENDIX A 65

HANFORD LIBRARY


LIBRARY

APPENDIX A 66

AERIAL VIEW OF 3000 AREA

APPENDIX A 67

CENTRAL SHOPS

APPENDIX A 68

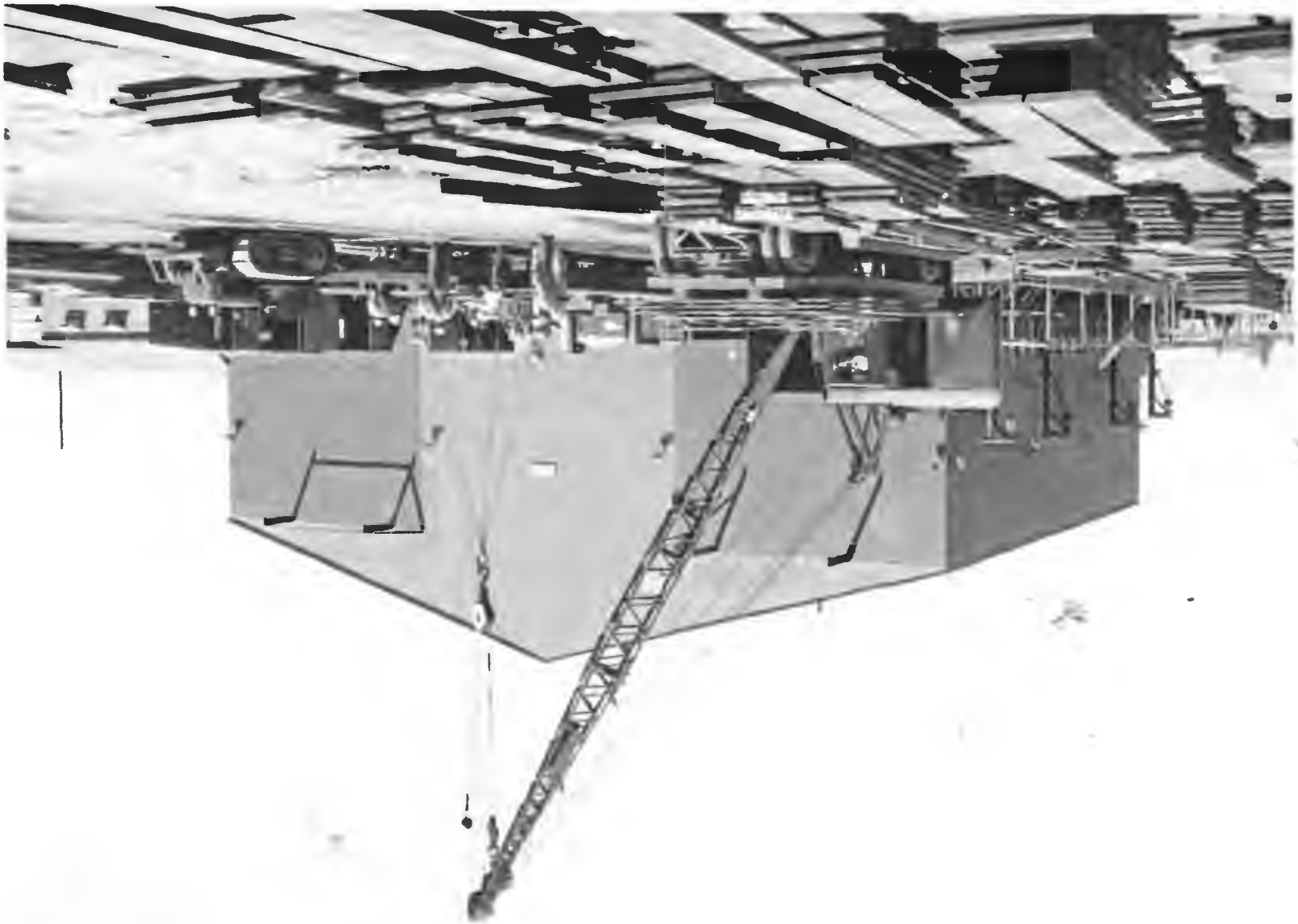
GRAPHITE SHOP

APPENDIX A 69

WHITE-BLUFFS CONCRETE PIPE SHOP

APPENDIX A 70

WHITE-BLUFFS FABRICATION SHOP



APPENDIX A 71

CONCRETE PLANT

APPENDIX A 72

AGGREGATE PLANT (HAVEN)

APPENDIX A 73

HANFORD BITUMINOUS WALK

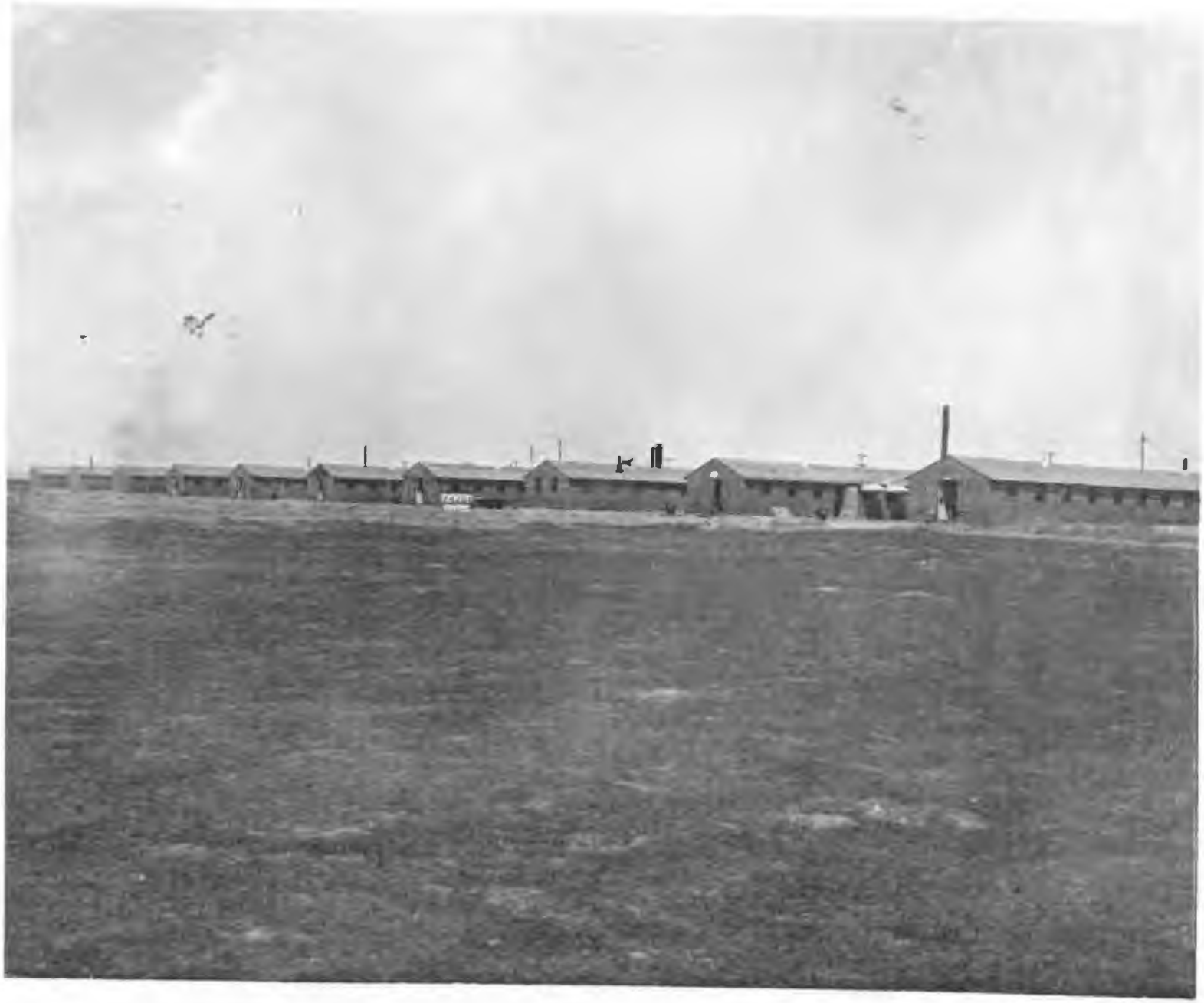
APPENDIX A 74

RIVERLAND YARDS


P 8017

APPENDIX A 75

LITTLE PASCO CAMP



APPENDIX A 76

FAMILY TYPE (TRACT) HOUSE

APPENDIX A 77

BACHELOR QUARTERS (TRACT HOUSE)

APPENDIX A 78

HANFORD AIRPORT


HANFORD AIRPORT

APPENDIX A 79

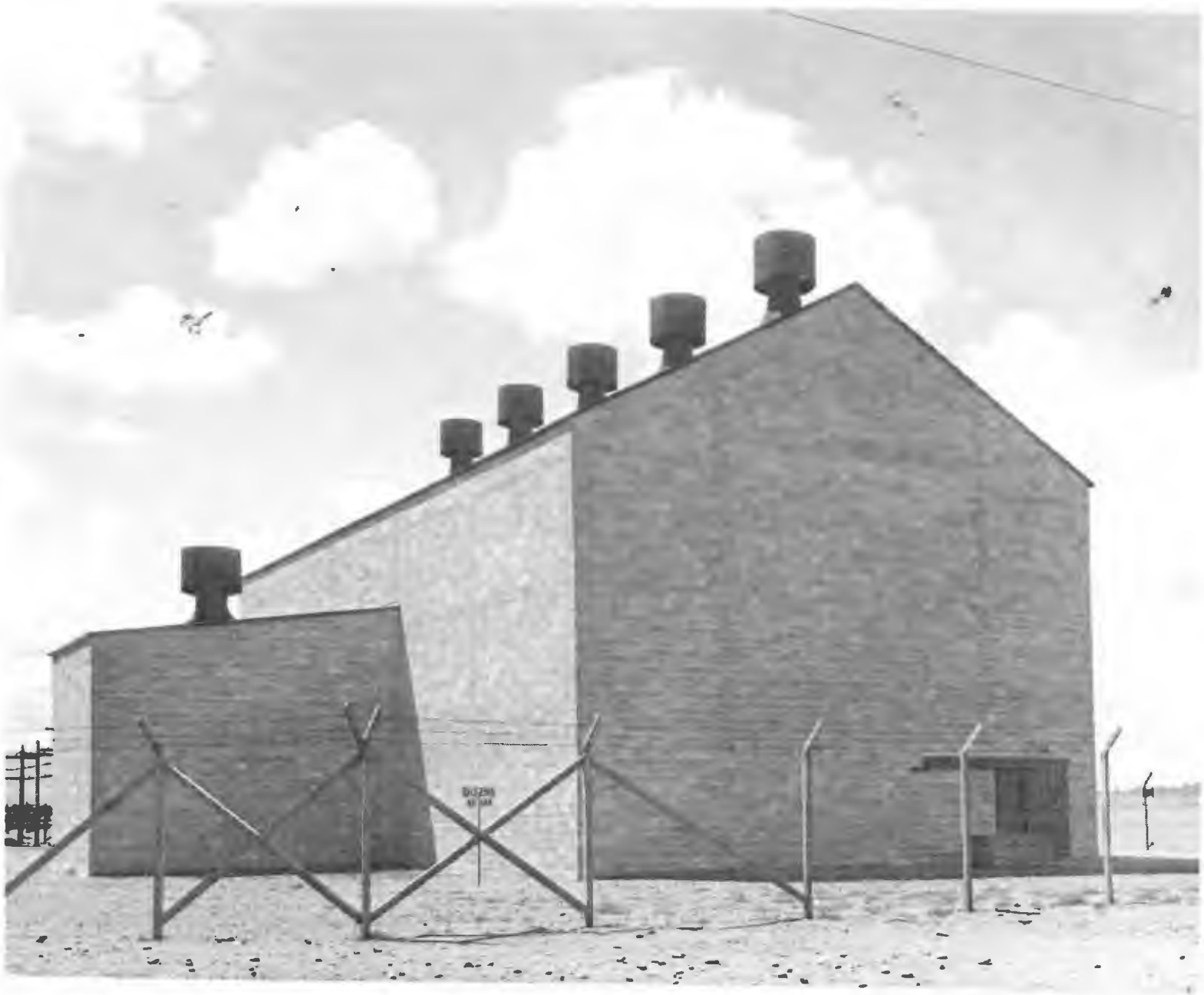
METAL FABRICATION AND TESTING (300) AREA

PILE BUILDING (305)

This building is located in the northwest corner of the 300 Area, and consists principally of a large oblong, steel-framed, concrete block, gable-roofed structure. The main axis of the building is on an east-west line. At the west end of the main structure are two small storage rooms spanning the width of the building, with a fan room above. Along the south side of the building at the west end are an Instrument Room, Supervisors' Office, Locker and Toilet Room, General Storage Room, and an Apparatus Room.

The building is steel-framed throughout; walls are of 8" concrete block construction on the outside and 4" between rooms. The roof consists of two-ply, 44# and one-ply 15# felt applied with hot asphalt on a pre-cast tile deck. The air entering the building is washed and circulated, and a pressure of approximately 1" of water is maintained. The Instrument Room itself is air-conditioned and the air-conditioning equipment is contained in the General Storage Room. There are five 36" ventilators on the roof of the main structure, one 30" ventilator on the roof of the Equipment Room, and two 30" ventilators on the roofs of the Storage Rooms. There are no outside windows in the building and all outside doors except two pedestrian doors are 8' square, metal-sheathed sliding doors. Floors of the building are of 8" reinforced concrete throughout, set on concrete wall foundations and concrete piers with spread footings.

This building is approximately 163' long by 87' wide by 51' in height. It has an area of 7,000 square feet, and a displacement volume of 247,000 cubic feet.



[redacted]

APPENDIX A 81

METAL FABRICATION BUILDING (313)

One Metal Fabrication Building was provided for the 300 Area. This one-story, thick-set, T-shaped structure is located in the center of the area approximately 100 feet east of Building 314. In the central portion, the building contains space for numerous electric furnaces and metal presses, Canning Process #1, Canning Process #2, recovery process, a welding area, a car washing area, a can washing area, two offices, and a toilet. The protruding western portion of the building contains a control room, a toolroom and shop, a storeroom, a women's rest room and toilet. The protruding eastern portion of the building houses Canning Process #3.

This structure consists of a 4" reinforced concrete slab floor supported on reinforced concrete foundation, structural steel framing, concrete block walls and a precast concrete slab roof with tar and travel surface. The interior partitions are of concrete block and concrete brick.

The over-all dimensions of this building are 199½' x 188½' x 20'. The cross-sectional area is 35,020 square feet, and the displacement volume is 609,700 cubic feet.

[redacted]

[redacted]

APPENDIX A SE

PRESS BUILDING (314)

One Press Building was provided for the 300 Area. This one-story, gable roof building is located in the center of the area approximately 150' east of the 313 Building. This building is rectangular in shape with the long axis running east and west. A wing is located along the north side of the building at the east end. The structure has a reinforced concrete floor supported on reinforced concrete foundation walls and piers, structural steel framework, concrete block walls and corrugated asbestos roof. A 36" continuous roof ventilator with operable dampers extends along the gable roof for almost the entire length of the building. At the east end of the building is located an unloading platform. Four unit heaters with air-intake openings are located, one at either end and two along the south side of the structure.

The over-all dimensions of this building are 190½' x 89½' x 40', and the cross-sectional area is 14,842 square feet. The displacement volume is 678,660 cubic feet.

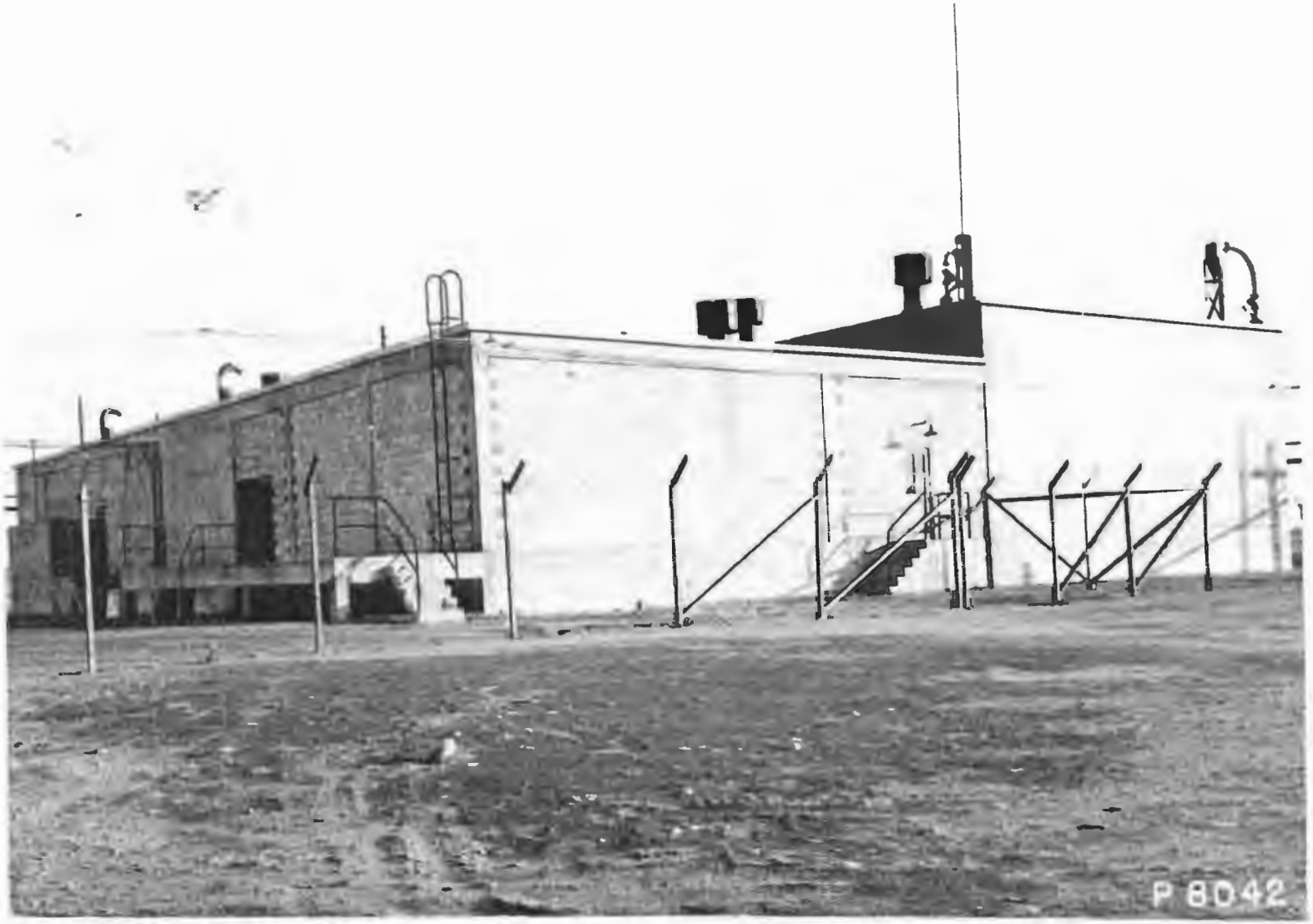
[redacted]

SEPARATION BUILDING (321)

One Separation Building was constructed in the south portion of the 300 Area approximately 100 feet south of the 3706 Building. It is a two-story partially below grade, reinforced concrete frame, windowless structure, with concrete and concrete block exterior and interior walls. This building contains 14 rooms, not including stairwells and closets. The building foundations are composed of reinforced concrete walls with spread footings and support reinforced concrete slab floors varying from 4" to 12" in thickness.

The south half of the structure is one-story high, having outside walls of concrete 1' in thickness. This section of the building contains a 12' below ground level cell area which extends the entire width of the building and contains numerous tanks or cells. A Mezzanine floor runs along the south wall of this building on which are mounted gauge boards and weight tanks. The north half of the structure contains on the below ground level floor, a large chemical storage room in the northwest half, a process air conditioning, heating, and ventilating equipment room in the northeast half, with #1 sample room in the northeast corner. At this level a pipe gallery runs the entire width of the building between the cell area on the south and the equipment and chemical storage area on the north. A large chemical preparation room is located on the second floor above the chemical storage room. This area also contains on this floor, an office, large locker room with toilet, cleaning room, receiving room, lunch room, laboratory, and sample room #2.

The overall dimensions of this building are 122' x 87½' x 33'. The cross-sectional area is 10,675 square feet, and the displacement volume is 323,300 cubic feet.


P 8042

[redacted]

APPENDIX A 84'

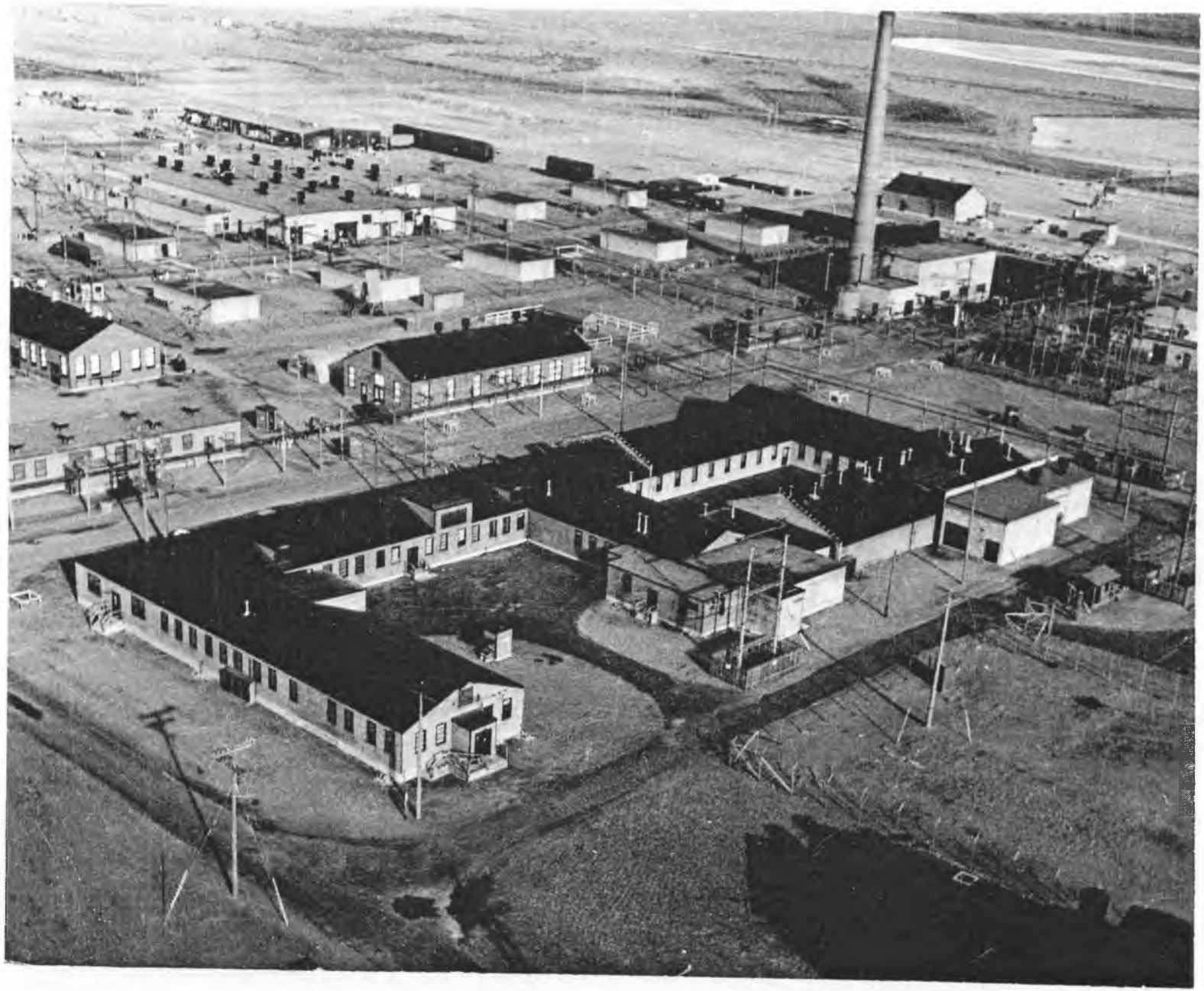
LABORATORY (3706)

One Laboratory was provided for the 300 Area. The Laboratory is a large, one-story building, roughly rectangular in shape with a center court at one end and an open court at the other end. It is located in the south-central portion of the area just south of the main gate road, with its long axis running east and west. At the extreme right of the photograph is the Air Conditioning Equipment Building which is in the shape of a thick-set "L" and contains the air conditioning equipment for the Laboratory.

The Laboratory contains 90 rooms with central corridors. There are 57 laboratories, 19 offices, 4 toilets, 2 rest rooms, 2 storerooms, 2 shops, lunch room, locker room, dark room, and ventilating equipment room. Along the south side of the structure, near the center, is located a large laboratory of concrete. It has seven ventilating systems which provide air conditioning, ventilation and laboratory exhaust facilities for the numerous rooms and laboratories.

The over-all dimensions of this building are 327⅓' x 140' x 22', the cross-sectional area is 50,100 square feet, and the displacement volume is 511,700 cubic feet.

[redacted]



APPENDIX A 85

AERIAL VIEW OF PILE (100 D) AREA

RIVER PUMP HOUSE (181)

A River Pump House is provided in each of the three Pile Areas. These buildings are similar in design; however, they differ considerably in size, quantity of equipment and in the construction of the river intake channels. Each building is constructed of reinforced concrete and concrete blocks. Structural steel is used on portions of the exterior of the buildings for the support of equipment and platforms. The foundations of the buildings are divided by reinforced concrete walls that form the pump wells, which receive water from the river intake channels.

To provide a sufficient quantity of water for each of the river pump houses, channels were constructed, extending from the pump house into the main river channel. Each channel was excavated to a depth of approximately 10 feet below extreme low water level and the bottom of the channel is essentially the same depth as the deepest part of the river channel opposite the pump houses.

The following are the dimensions of these buildings:

	Dimensions	Volume	Area
181-B Overall	130' x 64' x 80'	*412,000 Cu.Ft.	6,100 Sq.Ft.
181-D Overall	170' x 64' x 80'	*572,000 Cu.Ft.	8,350 Sq.Ft.
181-F Overall	170' x 64' x 86'	*606,000 Cu.Ft.	8,350 Sq.Ft.

*From bottom of foundation to top of roof.

[redacted]

[redacted]

RESERVOIR AND PUMP HOUSE (182)

This building consists of two main structures, a reinforced concrete reservoir, and a reinforced concrete and concrete block pump house.

The reservoir consists of a rectangular, sloped, reinforced concrete basin. The bottom is a poured reinforced concrete slab 6" thick; the sloping sides are of reinforced Gunite 4" thick; and the vertical portion of the side walls is of poured reinforced concrete 10" thick. The reservoir is divided into two sections by a 10" reinforced concrete wall (with reinforced Gunite sloping sides) running parallel to the short dimension of the structure. The inlet section of the reservoir, known as the reserve section, holds 15 million gallons of water, while the other, or working section, holds 10 million gallons. Top of dividing wall between the two sections is approximately 2-3/4' below the top of side walls and thus acts as a weir between the two sections.

The Pump House runs along the east wall of the reservoir in 182-B and D, and along the north wall in 182-F. The Pump House is an essentially below ground level structure which houses the necessary pumping equipment to transfer the water from the reservoir to other process buildings within the area and also to the 100 and 200 Process Areas. Located next to the reservoir wall are a series of seven reinforced concrete-enclosed suction wells. The water enters each of these wells or compartments through a 4 ft. square, manually-operated sluice gate. Fish screens are provided in front of four of the sluice gates.

The following are the dimensions of this building:

	Dimensions	Volume	Area
Reserve Reservoir	432' x 309' x 18'	15,000,000 Gals.	136,488 Sq.Ft.
Working Reservoir	432' x 209' x 18'	10,000,000 Gals.	90,288 Sq.Ft.
Overall Pump House	374' x 49$\frac{1}{2}$' x 22$\frac{1}{2}$'	*418,750 Cu.Ft.	18,513 Sq.Ft.

*From bottom of foundation to top of roof.

FILTER PLANT (183-D)

This building consists of four structures: the Head House and Chemical Building, the Flocculation and Subsidence Basins, the Filter Building proper, and the Clear Water Reservoir and Pump Room.

The Head House and Chemical Building consists of a three-story, steel-framed reinforced concrete and concrete block enclosed structure, including a covered car spot. There is a dock for unloading package material directly from the car while bulk shipments can be unloaded by bottom dump cars or by scooping to the side into a bulk conveyor hopper under the track.

Flocculation and Subsidence Basins consists of a number of open reinforced concrete basins. The distribution flume empties into any one or all twelve 55,000 gallon Flocculation Chambers equipped with agitators. Next to each Flocculation Chamber is a 500,000 gallon concrete subsidence basin.

The Filter Building consists of a series of twelve two-section filter beds having a total capacity of 36,000 GPM. In the 183-D Building there are thirteen beds having a total capacity of 39,000 GPM. The filter beds consists of a 12" layer of gravel, then a 10" layer of sand, and finally a 20" layer of anthrafilt.

The Clear Water Reservoir and Pump Room consists of two 5,000,000 gallon reinforced concrete, completely enclosed, reservoirs between which is a pump room. The Pump Room contains nine electric pumps (ten in 183-D), and six steam turbine pumps. Two of these pumps are used for backwashing the filter beds and four pumps are connected to the combined sanitary and fire protection system. The remaining nine pumps, (ten in 183-D), handle the distribution of filtered water.

The following are the dimensions of this building:

	Dimensions	Volume	Area
Head House and Chemical Building (Overall)	133' x 62½' x 52'	213,200 Cu. Ft.	5,230 Sq. Ft.
Flocculation Basins	654' x 30' x 10'	660,000 Gals.	19,620 Sq. Ft.
Subsidence Basins	650' x 100' x 20'	6,000,000 Gals.	65,000 Sq. Ft.
Filter Building (Overall)	648' x 40' x 40'	1,036,800 Cu. Ft.	25,920 Sq. Ft.
Pump Room & Elect. Room	130' x 35' x 34'	117,900 Cu. Ft.	4,550 Sq. Ft.
Clear Water Reservoirs - B and D Areas - Two	712' x 130' x 22'	10,000,000 Gals.	92,560 Sq. Ft.
Clear Water Reservoirs - F Area - Two	712' x 150' x 16½'	9,000,000 Gals.	106,800 Sq. Ft.


P 8001

[redacted]

DEMINERALIZATION PLANT (186 D)

There is only one Demineralizing Plant and it is located in the 100-D Area between the 183 Building and the 189 - 185 - 190 Buildings group. Space has been provided, however, in the same location in the 100-B and 100-F Areas for the possible future construction of a 186 Building in those Areas.

The Demineralizing Plant is a two-story structure having reinforced concrete foundations, reinforced concrete slab floor, steel framing, concrete block superstructure, and built-up roofing over precast concrete tile slabs. The main axis of the building extends in a north-south direction, paralleling the 189-195-190 Buildings Group.

The overall dimensions of this building are 670' in length by 128' in width by 87' in height. The displacement volume is 2,819,460 cubic feet, and the cross-sectional area is 69,424 square feet.

[redacted]


P 8243

[redacted]

APPENDIX A 90

DEAERATION (185), REFRIGERATION (189), PROCESS PUMP (190) BUILDINGS.

There is one Deaeration Plant in each of the three 100-Areas. These buildings are identical in size and very similar in design; however, no adjacent refrigeration plant is provided in 185-B as in 185-D and 185-F.

The over-all dimensions of this building are 306' in length by 48' in width by 182' in height. The displacement volume is 796,800 cubic feet, and the cross-sectional area is 14,688 square feet.

There are two Refrigeration Buildings - one in the 100-D Area and one in the 100-F Area. The 189-D Building is approximately 50 per cent larger than the 189-F Building, both in equipment and in the size of building structure.

The over-all dimensions of 189-D Building are 307' in length by 76' in width by 58' in height. The displacement volume is 723,960 cubic feet, and the cross-sectional area is 20,181 square feet.

There is one Process Pump House in each of the three 100-Areas. These buildings are identical in design, size, and installed equipment, except that in the 190-D Building, the four Process Water Storage Tanks are lined with Buna-S rubber and most of the process piping is either stainless steel or rubber lined.

The over-all dimensions of this building are 456' in length by 184' in width by 67' in height. The displacement volume is 4,473,760 cubic feet, and the cross-sectional area is 100,610 square feet.

[redacted]

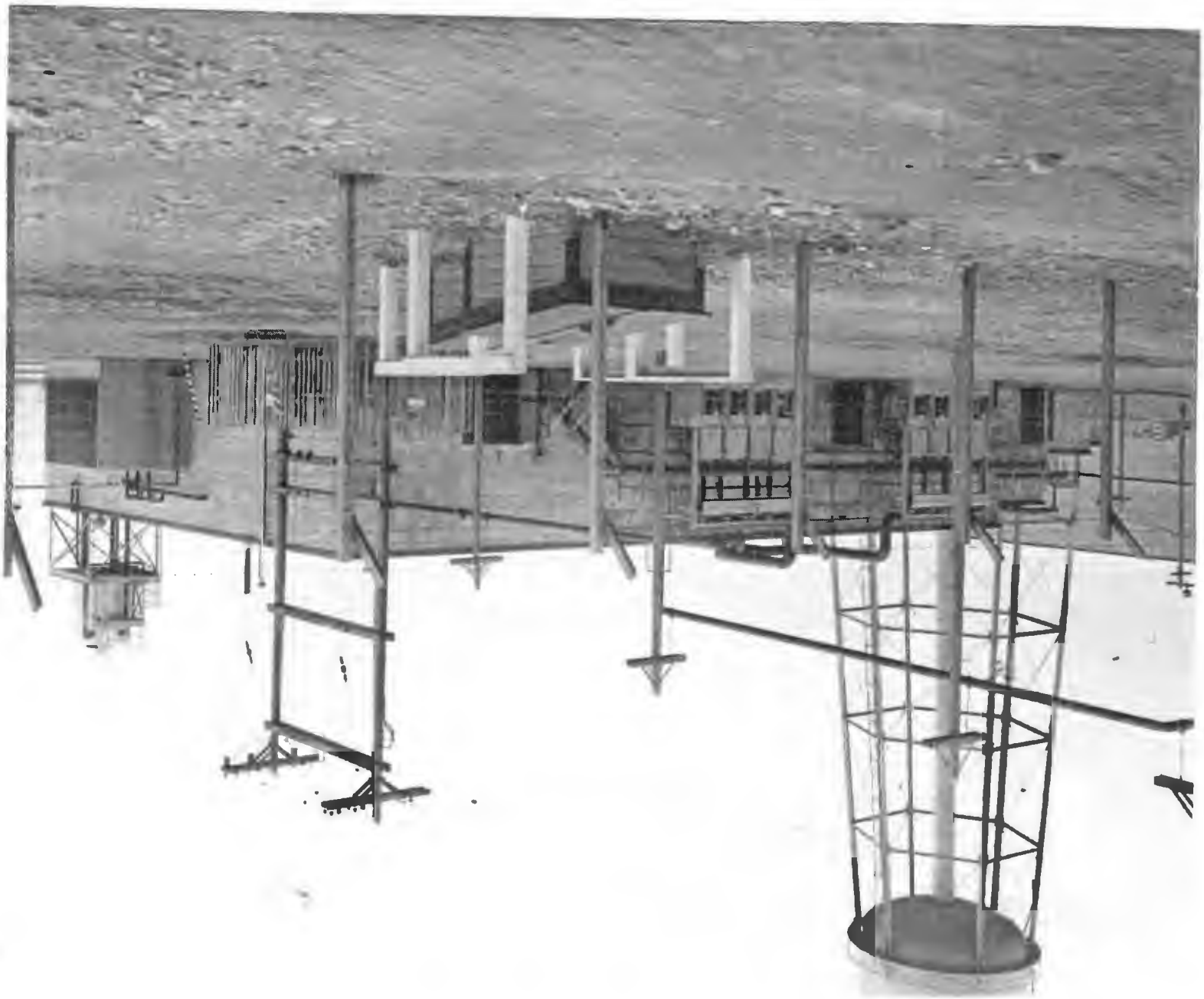

P 8000

HELIUM PURIFICATION BUILDING (115 F)

The Helium Purification Building is essentially a one-story building of reinforced concrete and located directly south of the 105 Building in the 100-B and 100-D Areas, and directly west of the 105 Building in the 100-F Area. This building includes an underground reinforced concrete pipe tunnel connecting with the 105 Building. This tunnel is identical in the D and F Areas, but is longer in the B Area and has two right angle turns. This building contains a Control Room, three Dryer Rooms, two Cooler and Blower Rooms, two Blower Rooms, two Ventilator Rooms, two Purification Rooms, a large Fan Room having an Office and Toilet Room in one corner, a large underground Pipe Room, and 15 outside instrument cubicles.

The building is supported on reinforced concrete piers having spread footings and by reinforced concrete underground pipe room which serves as a support for the center of the structure. Exterior walls of the structure are of reinforced concrete and concrete block. The roof is of reinforced concrete having a tar and gravel surface with the exception of that portion over the large Fan Room where the roof is pre-cast reinforced concrete tile with tar and gravel surface.

The overall dimensions of this building are 168' x 98' x 33$\frac{1}{2}$'; the cross-sectional area is 14,810 Sq. Ft., and the displacement volume is 457,800 Cu. Ft.



RETENTION BASIN

There is one Retention Basin in each of the three 100-Areas, identical in size, shape and design, and located near the Columbia River in the north portion of B and D Areas and east portion of F Area. The long axes of the 107-B and 107-D Basins run in an east-west direction with the discharge end of 107-B Basin on the east, and the discharge end of 107-D Basin on the west. The long axis of the 107-F Basin runs in a north-south direction with the discharge end of the basin on the north. Each structure consists of a large rectangular basin with intake chamber and shelter at one end and pump house and water-sampling laboratory at the other.

The Retention Basin has reinforced concrete retaining walls which slope in thickness from 1 ft. at the top to 3 ft. to 8 ft. at the base. Above certain portions of this retaining wall, where the terrain of the ground requires it, is a vertical concrete block wall with 3" concrete top slab. The interior sides of the basin are 4" reinforced gunite on a 2 to 1 slope and the floor of the basin is a reinforced concrete slab 6" in thickness. At the intake end of the basin is a waste water pipe from the 105 Building, 48" in diameter in the B Area, 60" in diameter in the D Area, and 42" diameter in the F Area, which discharges into a 12 ft. long by 8 ft. wide by 20 ft. high reinforced concrete intake chamber lined with 2" thick spruce planking. Opposite the intake pipe is a reinforced concrete weir approximately 15-1/2 ft. above the bottom of the chamber which discharges into a reinforced concrete overflow flume running along the center line of the basin to the discharge end, and dividing the basin into two equal parts. One 4ft. square sluice gate is located near the bottom on either side of the intake chamber and opens into the Retention Basin.

At the discharge end of the basin is the discharge pipe and a one-story Pump House which houses the Retention Basin pumping equipment. This structure has a reinforced concrete slab floor, drop-siding walls over 1" sheathing, and a smooth surface, sloping roof of built-up asphalt felt. Adjacent to this structure, but approximately 10 ft. above it, is the discharge water-sampling laboratory which contains three water-sampling pumps, laboratory testing table and small diameter water-sampling piping. This one-story building has a wooden floor, walls of drop-siding over 1" sheathing and smooth surface sloping roof of built-up asphalt felt. A wooden stairway provides access to this building.

The overall dimensions of this building are 496' x 240' x 20', the cross-sectional area is 115,100 sq. ft., and the displacement volume is 1,153,500 cu. ft. Each side of the basin is capable of holding 6,000,000 gallons of process waste water.


P 8458

[redacted]

POWER HOUSE (154 D)

This building is called the Power House but is primarily a Boiler House, containing only a small turbine generator for emergencies, capable of supplying building lights and motors that must be maintained in continuous service. The building consists of the following structures: Main Power House, two 300' reinforced concrete smoke stacks, coal handling conveyor system, including crusher house, two transfer houses and track hoppers, an open coal storage pit, salt dissolving pit and brine pump house.

The main Power House consists of a three-story, steel frame, windowless building with reinforced concrete foundation, concrete block superstructure and concrete pre-cast roof, covered with built-up roofing consisting of felt, tar and gravel. The building is entirely above ground-level, with the exception of sluice trenches and piping.

[redacted]

The four boilers are connected to two reinforced concrete-lined stacks by means of four outside steel breechings, two breechings running to each stack. The stacks are 300 ft. tall and are 25 ft. at the base, tapering to 15 ft. at the top. They are located approximately 90 ft. from the Power House proper. In the base of each stack is an ash disposal system which connects with the main system under the Power House.

The following are the dimensions of this building:

	Dimensions	Volume	Area
Power House (Overall)	212' x 73' x 63'	860,700 Cu. Ft.	15,980 Sq.Ft.
Stacks (2)	25' Diam. x 300'	184,800 Cu. Ft.	858 Sq.Ft.
Coal Conveyor System	900' long	150,000 Cu. Ft.	8,800 Sq.Ft.
Coal Storage Pit	500' x 250' x 15'	1,530,000 Cu. Ft.	130,000 Sq.Ft.

[redacted]


P-2637

[redacted]

APPENDIX A 94

AERIAL VIEW OF PILE (100 D) AREA (6/20/44)

[redacted]


P—3402

APPENDIX A 95

AERIAL VIEW OF PILE (100 F) AREA (9/27/44)

[redacted]

APPENDIX A 96

AERIAL VIEW OF PILE (100 B) AREA (6/20/44)

[redacted]

APPENDIX A 97

AERIAL VIEW OF PILE (100 B) AREA (9/25/44)


P 6143

APPENDIX A 98

CONSTRUCTION OF RIVER PUMP HOUSE (181D BUILDING)

(3/9/44)


P 7886

APPENDIX A 09

CONSTRUCTION OF PILE (105 F) BUILDING (6/20/44)


P-1762
3-9-44

APPENDIX A 100

CONSTRUCTION OF PILE (105 D) BUILDING (3/10/44)

[redacted]

[redacted]

APPENDIX A 101

CONSTRUCTION OF PILE (106 D) BUILDING (4/21/44)

COMPLETED PILE (105 D) BUILDING (11/24/44)

The 105 Building is a concrete and concrete block pyramidal-shaped structure with a portion of it being steel frame. The main portion of the building houses the Process Unit or Pile. Separated from the rear face of the Pile by a concrete wall approximately 5 feet in thickness is the storage pit and transfer area. This portion of the 105 Building is exactly the same as the 212 Lag Storage Building.

To the south of the valve pit in the 105-B and 105-D Building and west of the valve pit in the 105-F Building is the fan house. This portion of the 105 Building houses the main blowers, heaters and air-filters for the entire building. There are four large blowers in this room and each is housed in its individual concrete-enclosed cubicle. Attached to the fan house is the concrete-enclosed exhaust duct for the 105 Building which exhausts all of the air into the 116 Stack. This building has an internal pressure of approximately one inch of water.

The overall dimensions of this building are approximately 120' x 150' x 120' high. The cross-sectional area is 24,000 square feet, and the displacement volume is approximately 2,000,000 cubic feet.

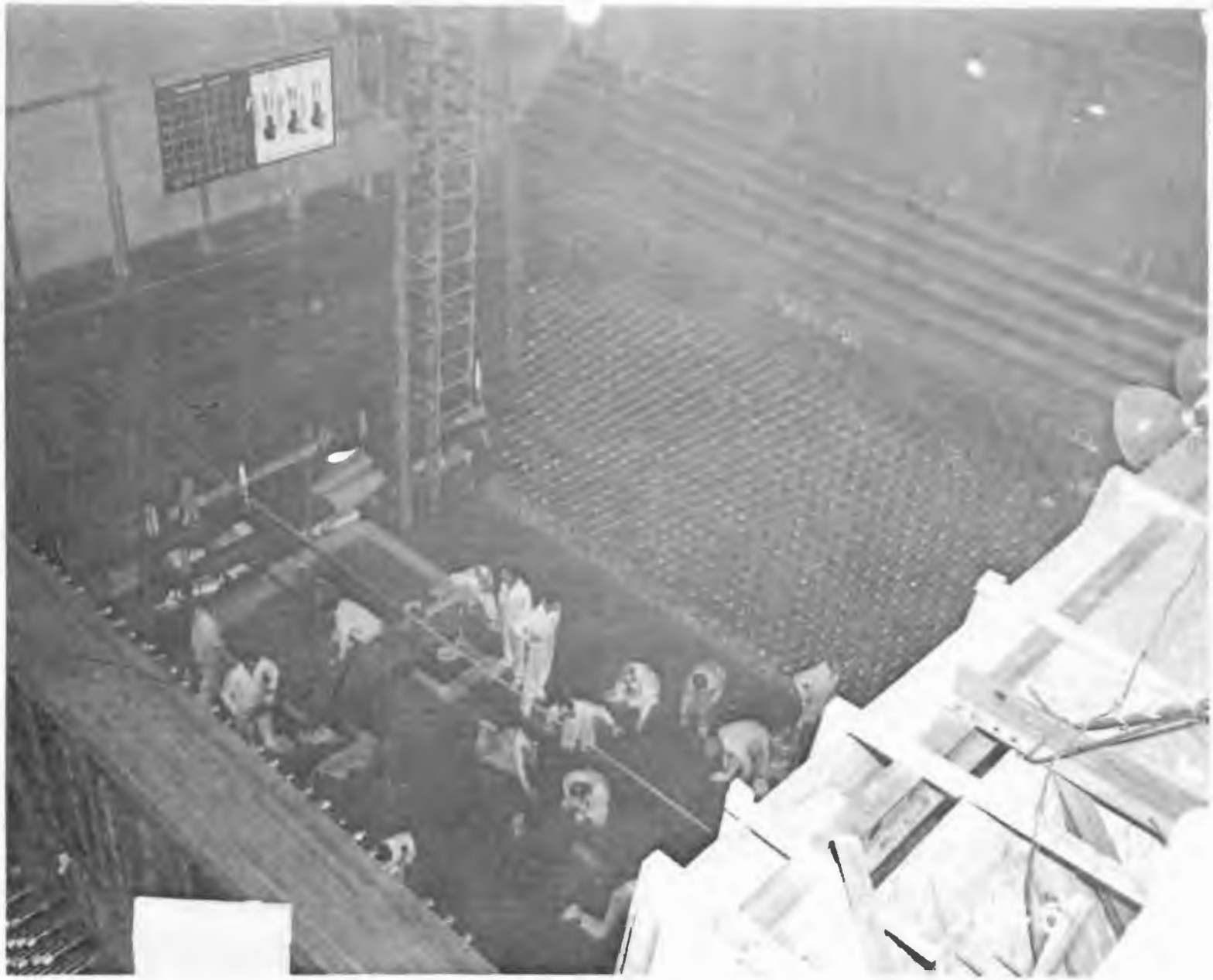
[redacted]

[redacted]

CLASSIFICATION CANCELLED
DATE
For The Atomic Energy Commission

Chief, Declassification Branch
DIVISION OF CLASSIFICATION

[redacted]



APPENDIX A 104

PILE (105) BUILDING AIRLOCK

[redacted]

APPENDIX A 105

AERIAL VIEW OF SEPARATION (200E) AREA (9/25/44)

[redacted]


P 6144

TAG STORAGE BUILDING (212)

This building is essentially a one-story, steel frame with 8" concrete block walls and pre-cast tile roof covered with built-up felt, graveled surface roofing. It is divided into three parts: Transfer Room, Storage Room, and Fan Room.

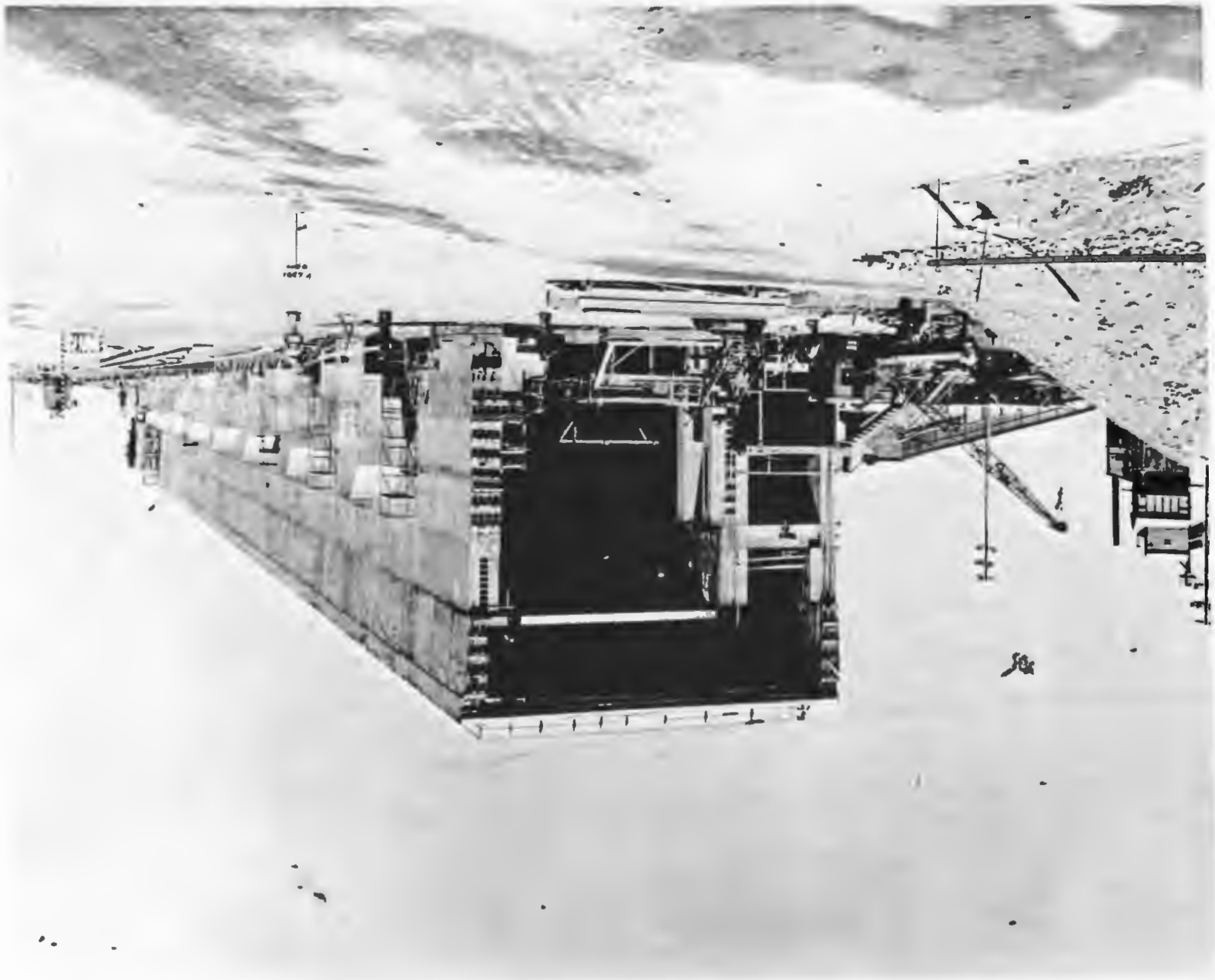
Transfer Room: This is the high east portion of the building containing two transfer pits, and accommodations for one special railroad car. An electrically operated overhead steel roller door covers the railroad entrance. This room is served by a 30-ton overhead bridge crane operated with a pendant cord control to handle casks from the car to the transfer pit and vice-versa. The transfer pits are equipped with manually-operated hydraulic systems for the handling of storage buckets. Inside surfaces of the transfer pit were painted with "Amercoat" to provide a non-porous surface.

Storage Room: This west portion of the building houses a sub-level 20'09" deep, water-filled concrete pool. A monorail system runs from the transfer pits to the Storage Room from the trolleys of which are suspended 180 galvanized dipped yokes and buckets. Buckets are weighed and counted by an automatic, printing, monorail scale located near the doorway leading to the Storage Room. The operating floor is made up of movable wooden sections supported by T-shaped concrete piers and slotted to allow yokes to pass.

Fan Room: This room is attached to the east side of the building, housing a selective forced draft heating and ventilating system. Air is discharged by wall ducts into the Storage Room after having been filtered and pre-heated by an electric unit heater. A separate unit heater is located in the Transfer Room.

This building contains no windows; three louvres and five pedestrian doors with outside concrete platforms and steps, one at each corner of the building and one for access to the Fan Room.

	Dimensions	Volume	Area
Overall	74' x 89'-8" x 37'-6"	169,090 Cu.Ft.	6,150 Sq.Ft.

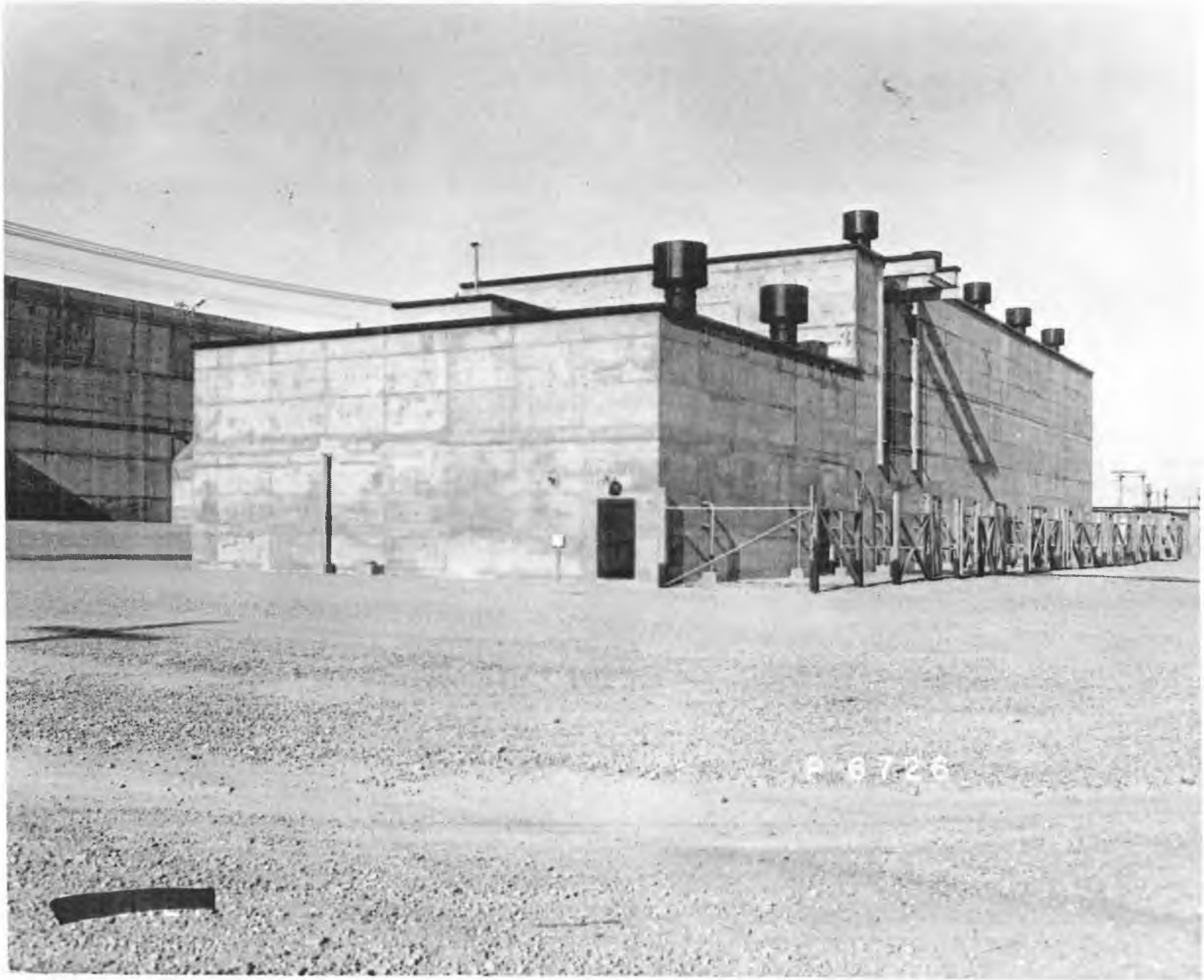


CONCENTRATION BUILDING (224)

Three reinforced concrete, three-story frame structures with concrete and concrete block exterior and interior walls were constructed - one for each of the 200 Process Groups, T, U, and B. The front of these buildings is 150' from the back of Building 221, and is in line with the front of Building 222. Each building contains a total of 21 rooms not including two stair towers, one closet, one janitor's closet, and an elevator penthouse.

The back side of the main structure has 1' thick concrete walls with a balcony running around three sides. This portion of the building is separated into Cells A to E inclusive, with Cells A, B, D, and E having a walled platform for supporting 40" centrifuges.. These cells are served by a hand-operated overhead crane. In Cell C, the right hand portion is a pit which connects with an underground pipe tunnel that runs from the center line of Sections 13 and 14 in Building 221 to the 224 Building. The floors in the cells are sloped to a trench along the wall in a manner similar to cell bottoms in Building 221. The equipment is designed to rest upon the floor. Bolted flange connections were used for cell vessels and equipment instead of the special piping connectors used in Building 221. All chemical and service lines enter the building on this level at the end of the building facing Building 222. The third floor is the Operating Gallery containing gauge boards and weigh tanks, etc. The bare panel boards are identical in size with those in Building 221 and in most instances, the arrangement of instruments and piping is the same.

	Dimensions	Volume	Area
Overall	60'-1" x 197' x 60'-5"	507,445 Cu. Ft.	11,982 Sq. Ft.


P 8726

APPENDIX A 10

EXHAUST BUILDING AND STACK (291)

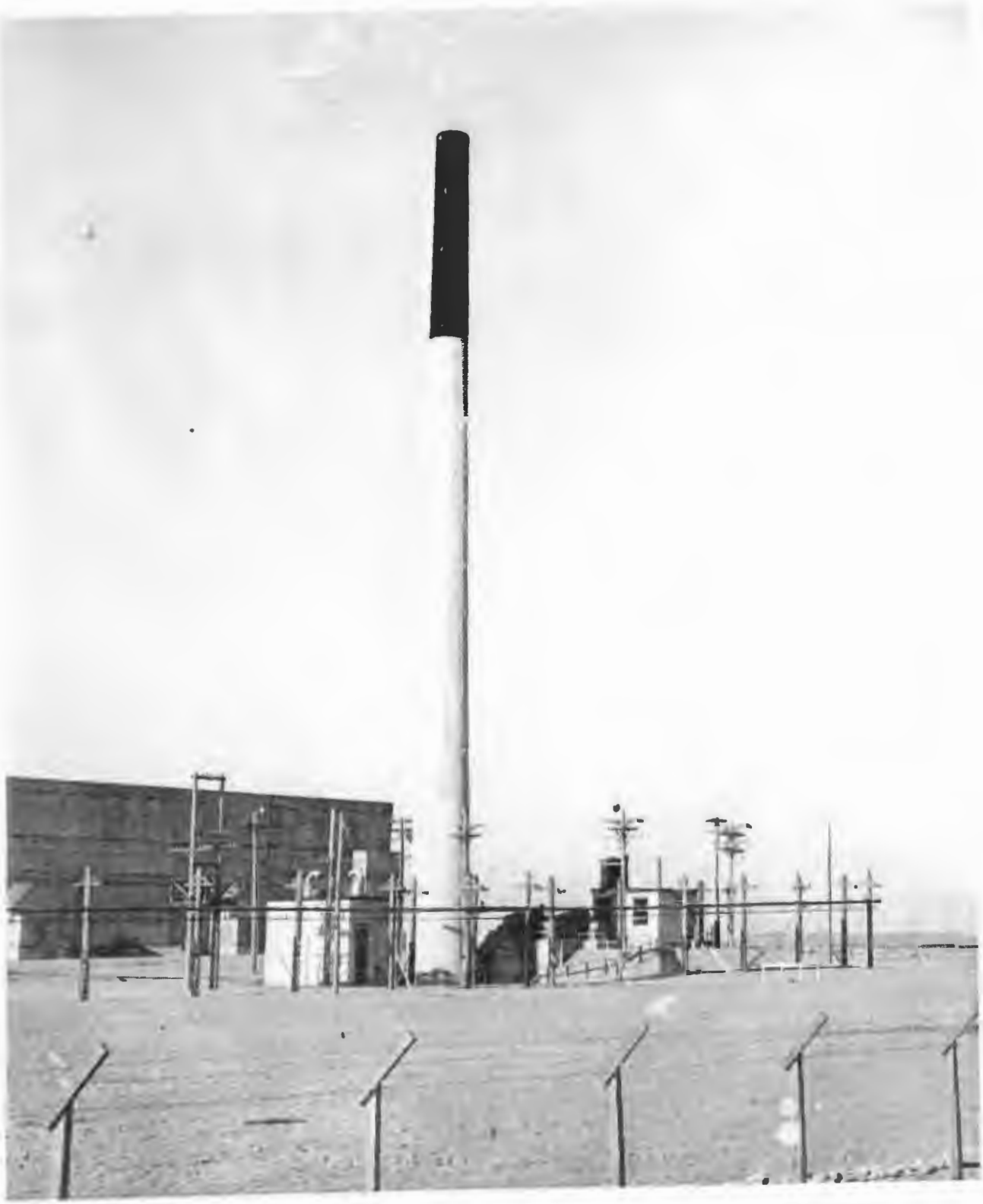
This building consists of a stack, three blowers, control house, and an underground inlet and exhaust duct system.

Stack: The stack is a reinforced concrete shell, 200' tall, having an independent acid-proof brick lining 5' inside diameter at the top. The stack foundation is reinforced concrete, octagon-shaped, 7' thick and is built having the top of the stack foundation 19' below the deck level of the 221 Building and 187' from the head face of the building, with the exception of 221-T, in which case the stack was located 252' from the head face. The stack foundation is so orientated that the breeching opening is on the axis parallel to the 221 Building, with the opening facing in the head end direction. An access door was provided opposite the breech opening, as well as ladder rungs, lightning protection, and stainless steel breeching.

Exhaust Fans: Three stainless steel fans are mounted on concrete foundations which are adjacent to the inlet and outlet air duct ducts, with the latter fan being steam-powered and enclosed in the control house. These fans are in line with the stack breeching parallel to the 221 Building. Exhaust gas is removed from the inlet duct by means of metal duct work between the concrete inlet duct and the fan and from the fan to the outlet concrete duct, then it is exhausted to the stack.

Control House: This building houses the third fan farthermost from the stack, steam engine, and controls. The structure is reinforced concrete and concrete block having a 9" curtain wall foundation, 8" thick floor slab, 8" thick concrete block walls, and a 6' thick concrete flat roof slab covered with built-up felt, gravel surfaced roofing. It contains two doors, one double and one single door, and one window. The building is steam heated.

Inlet and Outlet Ducts: The inlet duct consists of an L-shaped underground concrete passageway with the main part 4' wide by 7' high, which runs at right angles to the line of the fans and the 221 Building and directly connects with the center line of Section 5, that is, between Cells 5 and 6 of Building 221. The latter section of the inlet duct parallels the outlet duct and is separated only by a concrete wall. Walls are, in most cases, 12" thick reinforced concrete, having the inside surfaces painted with bituminastic.



[redacted]

[redacted]

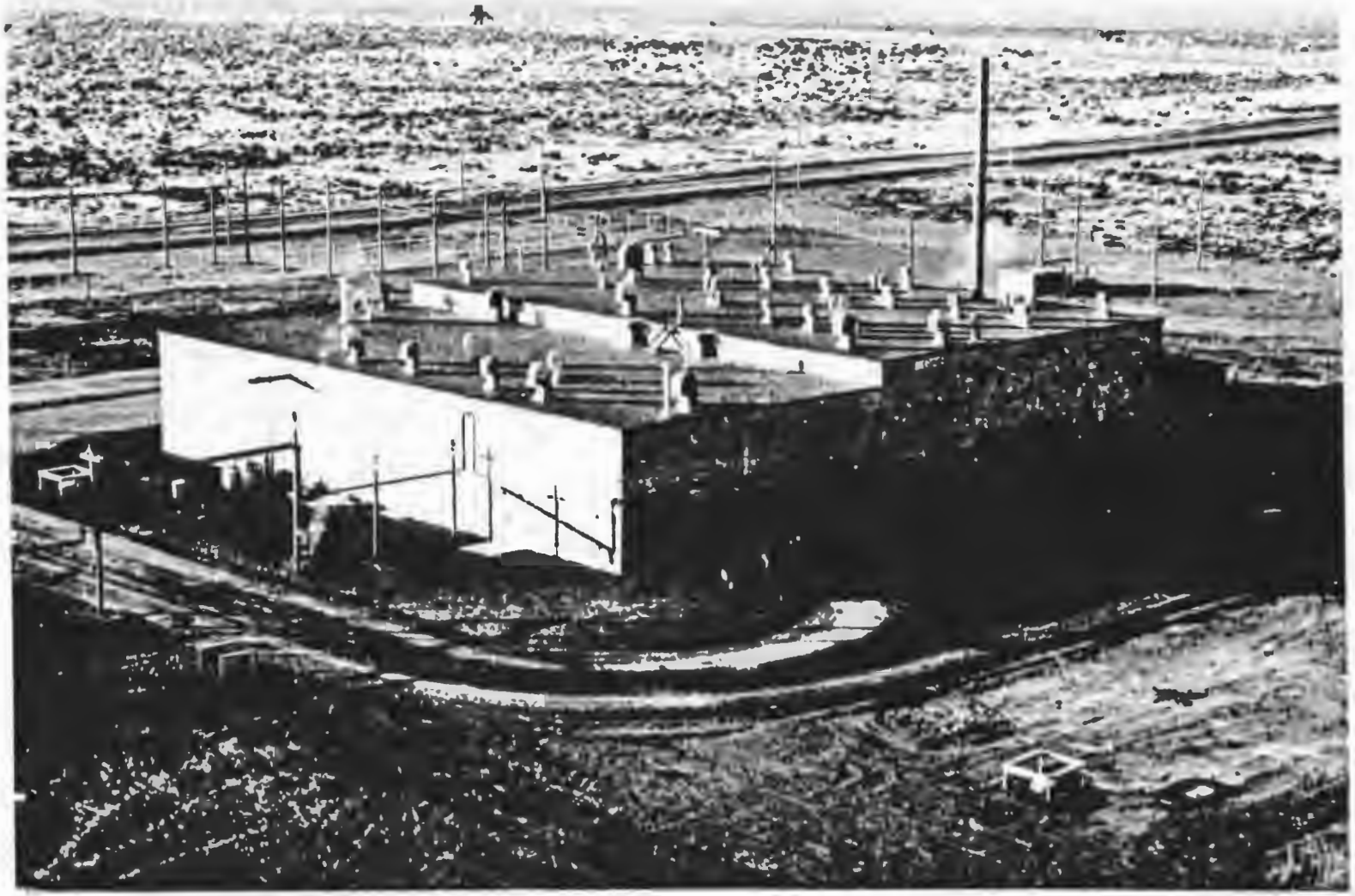
ISOLATION BUILDING (231-W)

In the western portion of the 200-W Area, midway between Building 241-T and Building 241-U, is located a two-story, flat roof, reinforced concrete, frame building with 8" concrete block panels and 4" and 8" concrete block partitions. In this building, the end product reaches its final process stage. The structure is of fireproof construction throughout, having most of the rooms completely air conditioned. For the latter reason, windows have been omitted.

The building contains a total of 57 rooms including approximately twenty Laboratories for various purposes, several Process and Chemical Receiving and Storage Rooms, Offices, Change Room facilities for 100 employees, air-conditioning equipment, distilled water system, ventilation and exhaust systems, and a compressed air system. All of these facilities except one toilet room are located on the first floor, with the second floor serving as a pipe and service loft containing duct work and filters for the ventilation and exhaust systems.

	Dimensions	Volume	Area
Over-all	147' x 189'-10" x 34'	303,240 Cu. Ft.	27,964 Sq. Ft.

[redacted]



[redacted]

APPENDIX A 110

MAGAZINE STORAGE BUILDINGS (213 J & K)

A reinforced concrete, earth-covered, magazine building containing two parallel vaults, was constructed in the easternmost portion of the 200 North Area for the storage of the product. The south end of each vault forms a continuous reinforced concrete wing-shaped retaining wall which has an attached reinforced concrete loading platform for each vault section. The structure is oriented north and south, having its center line identical with the center line of its access road. Distance between vault sections is 44'-6" face to face. Each section contains three rooms, namely, Magazine, Vestibule, and Instrument. The latter two have outside, steel-hinged doors opening out onto the loading platform.

Ventilation is provided by four 12" diameter A.C.M. ventilators in each unit, equipped with dampers and bird screens. These extend approximately 4 ft. above the backfill which averages 6' to 10' above the roof slab. Six-hour fire-resistive, double combination lock, steel doors are installed in the bulkhead wall. Reinforced concrete shelving with concrete brick partitions line each side of the Magazine Sections. The floor is built-up an additional 6" under the shelving portion.

	Dimensions	Volume	Area
Overall	47' x 147' x 21'	14,477 Cu. Ft.	1,155 Sq. Ft.

[redacted]

APPENDIX A 111

CONSTRUCTION OF SEPARATION (221 B) BUILDING (6/24/44)

APPENDIX A 113

CONSTRUCTION OF SEPARATION (221 T) BUILDING (5/21/44)

APPENDIX A 112

CONSTRUCTION OF SEPARATION (221 B) BUILDING (7/17/44)

APPENDIX A 114

CONSTRUCTION OF SEPARATION (221 U) BUILDING (8/17/44)

[redacted]

APPENDIX A 115

CONSTRUCTION OF SEPARATION (221 T) BUILDING (5/3/44)

[redacted]


P 4165

[redacted]

APPENDIX A 116

CONSTRUCTION OF SEPARATION (221 B) BUILDING (12/22/44)

[redacted]

[redacted]

APPENDIX A 117

COMPLETED SEPARATION BUILDING (221 T) (9/27/44)

In each Process Plant, T, U, & B, is a long, flat, rectangular-shaped mass concrete structure of which approximately one-quarter is below finished grade. These buildings are designated as Cell Buildings due to their design, and are identical in all respects except Building 221-T, which is 65' longer, containing a Head-End Addition. These buildings are of extremely unusual design due to process requirements. In other words, once the equipment in any of the cells is placed in operation, it will not be possible to approach it for maintenance or to manually remove or fit up piping. Each process group is symmetrically laid out, paralleling and supporting the 221 Building. In addition to it, the group is composed of the following: 211 Tank Farm, Building 222 - Sample Preparation Laboratory, 224 - Bulk Reduction Building, 241 - Process Waste Storage and Disposal System, 271 - Chemical Preparation and Service, 291 - Exhauster Building and Stack, and 292 - Exhaust Gas Laboratory.

The 221 Building structure is separated into two main portions - Galleries and Canyon, with the inside of the building being divided into twenty sections, each encompassing two cells. Sections are 40' long with the exception of Sections 1, 2, and 20 which are 44', 43'. and 43½' respectively.

Galleries: Building 221 is so designed that the control panel boards, chemical and service distribution, are located in three galleries, one above the other along the front side of the building. The first gallery is called the basement gallery and is used principally for electrical distribution and control cabinets. The first floor gallery consists principally of a piping loft containing steam, water, air, and chemical headers as well as piping connections between the panel boards and weigh tanks on the second floor and through-wall cell piping. The second floor gallery is the control center for the cell equipment.

Canyon: The lower portion of the canyon below the deck level contains 40 individual concrete cells having removable concrete cell-block covers. A 10'-6" x 10'-6" exhaust duct runs along the back wall of the building paralleling the bottom of the cells and is connected by an underground concrete duct to the 291 Exhauster Building and Stack for the removal of cell fumes. A reinforced concrete railroad tunnel, extending 150' from the front side of the building, provides rail service to this section.

	Dimensions	Volume	Area
221-T	85'-2" x 875'-6" x 102'	5,485,220 cu. ft.	66,319 sq.ft.
221-U & B	85'-2" x 810'-6" x 102'	5,098,464 cu.ft.	61,582 sq.ft.

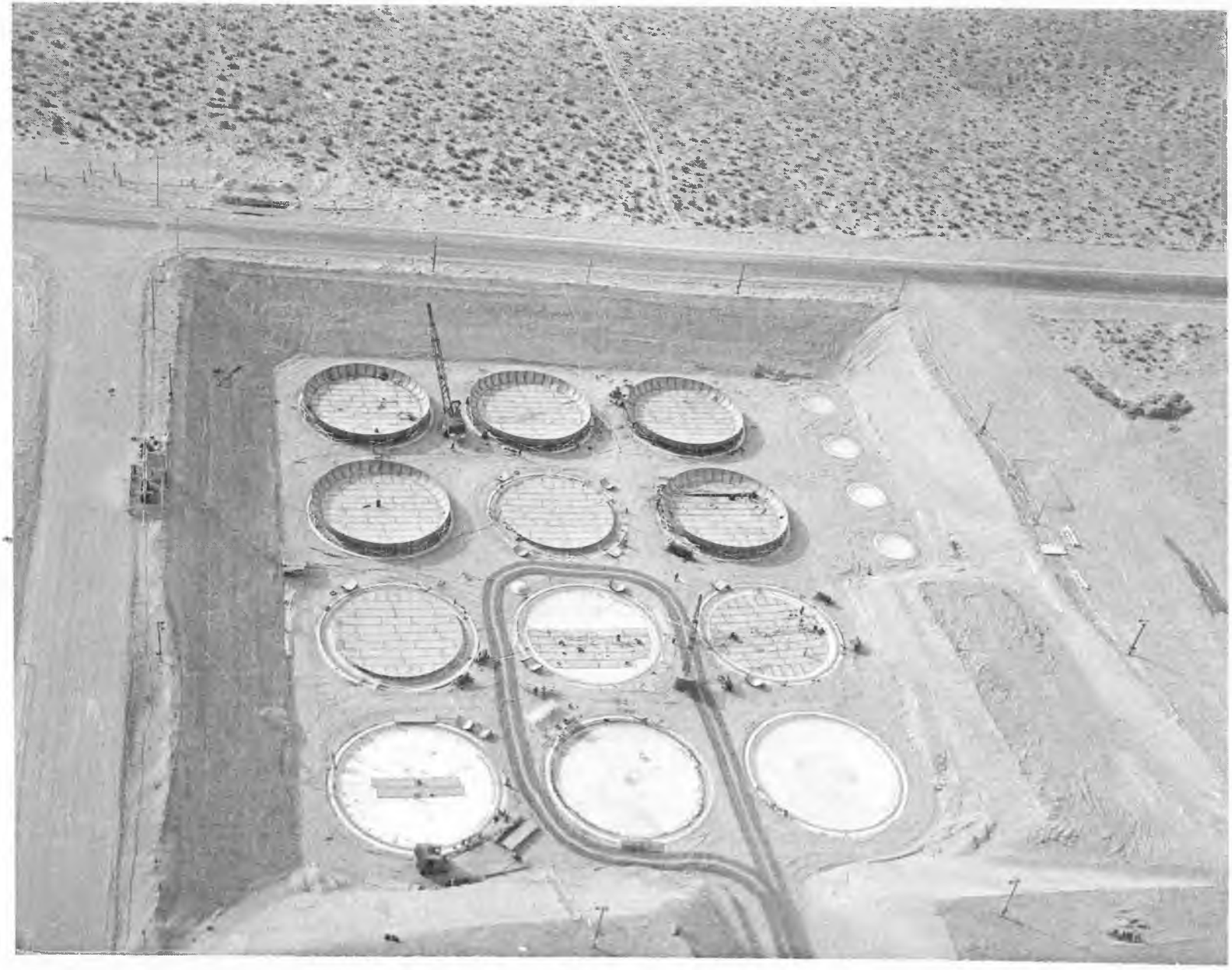
[redacted]


P 6147

APPENDIX A 118

FOUNDATIONS FOR WASTE PROCESS

DISPOSAL TANKS (241 T-3/21/44)



[redacted]

APPENDIX A 119

CONSTRUCTION OF WASTE PROCESS

DISPOSAL TANKS (241 C-8/1/44)

[redacted]

APPENDIX A 120

CONSTRUCTION OF WASTE PROCESS

DISPOSAL TANKS (241 B-7/7/44)


SECRET
P 7012

APPENDIX A 121

CONSTRUCTION OF WASTE PROCESS

DISPOSAL TANKS (241 B-9/25/44)

APPENDIX A 122

CONSTRUCTION OF WASTE PROCESS

DISPOSAL TANKS (241 C-11/20/44)


P 7280

[redacted]

APPENDIX A 123

CONSTRUCTION OF WASTE PROCESS

DISPOSAL TANKS (241 C-12/7/44)

[redacted]


P 7470

APPENDIX A 124

COMPLETED WASTE PROCESS

DISPOSAL TANKS (241 T-11/9/44)

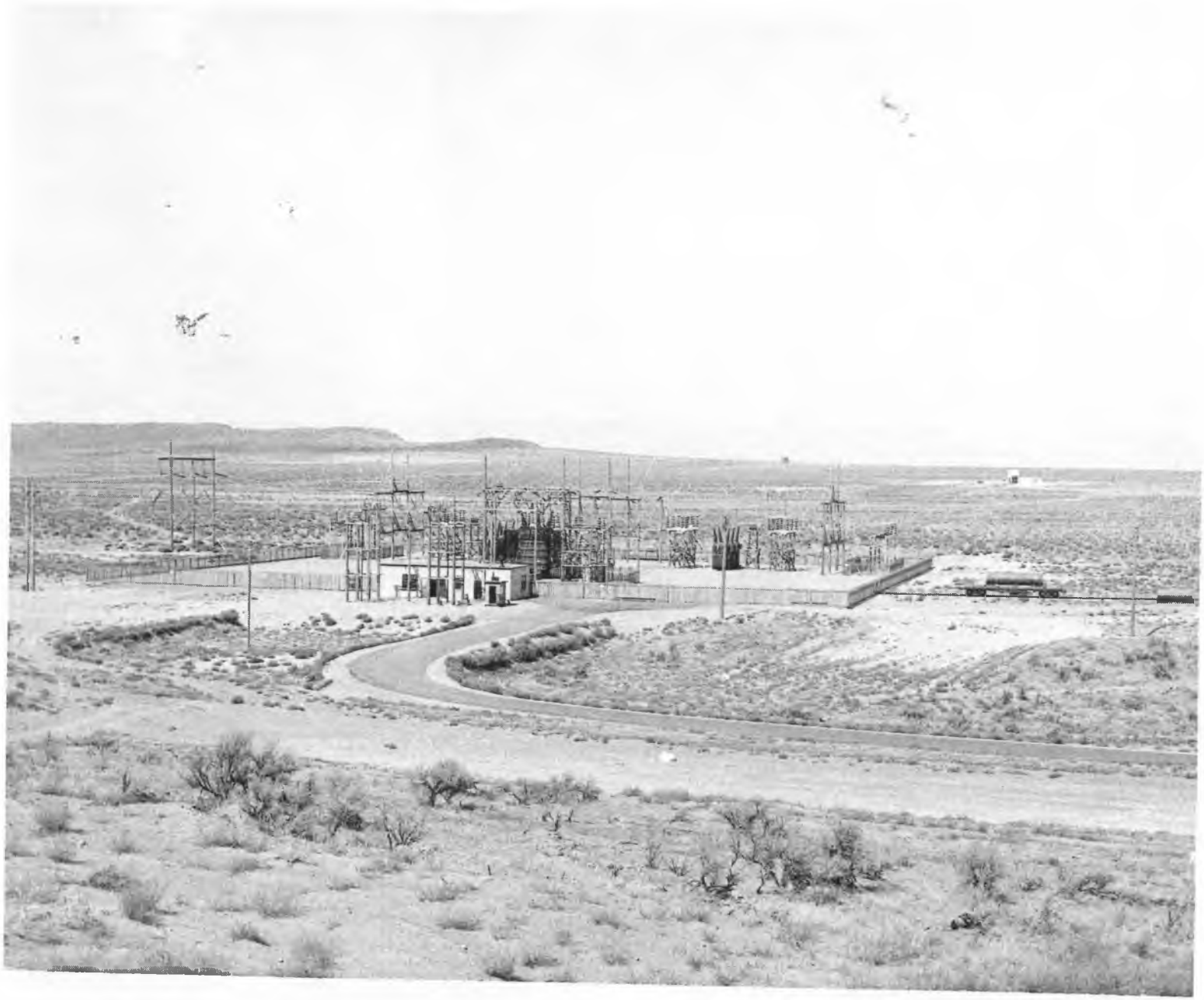
APPENDIX A 125

MIDWAY SUBSTATION


P-1765
3-10-44

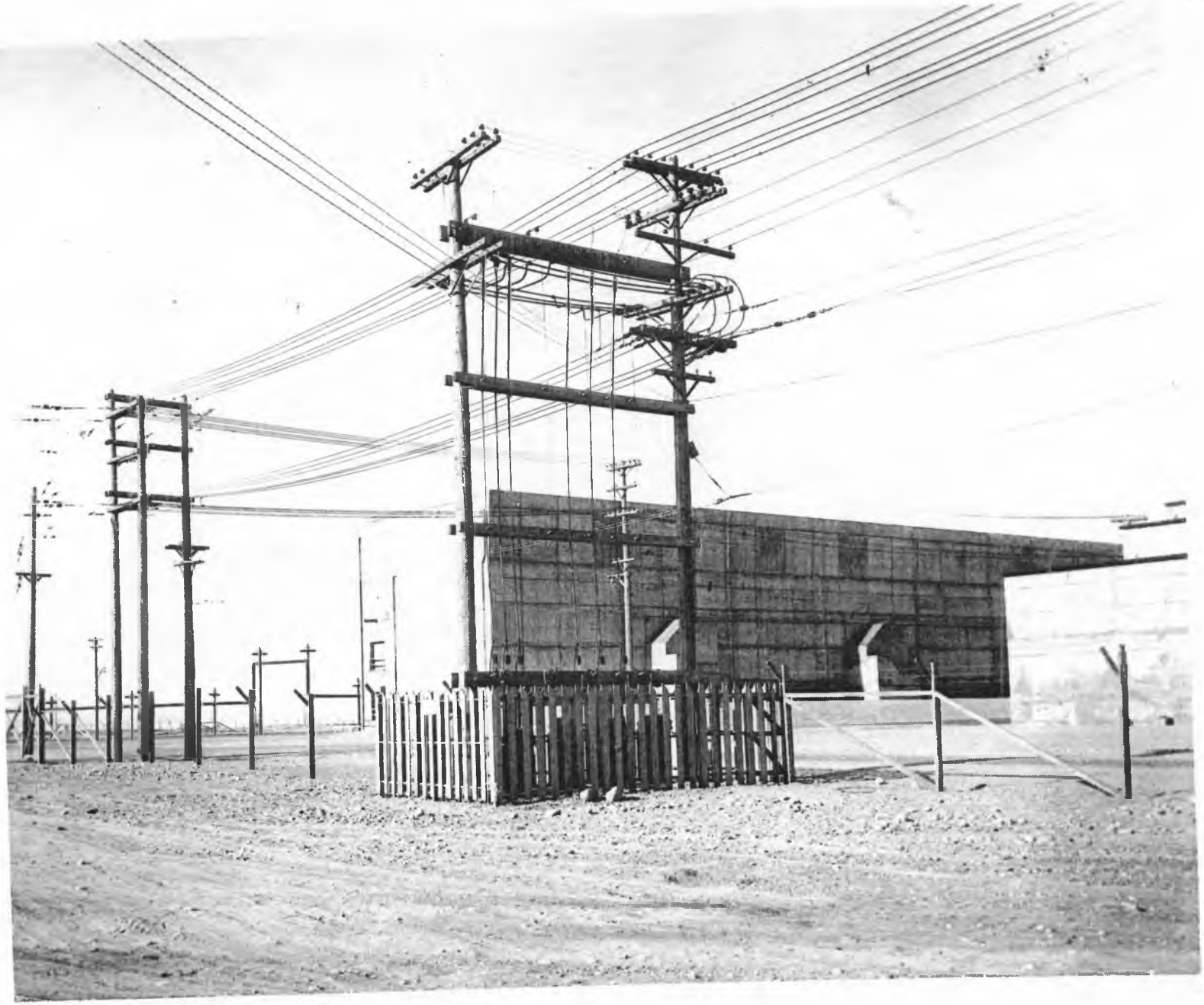
APPENDIX A 126

PRIMARY SUBSTATION



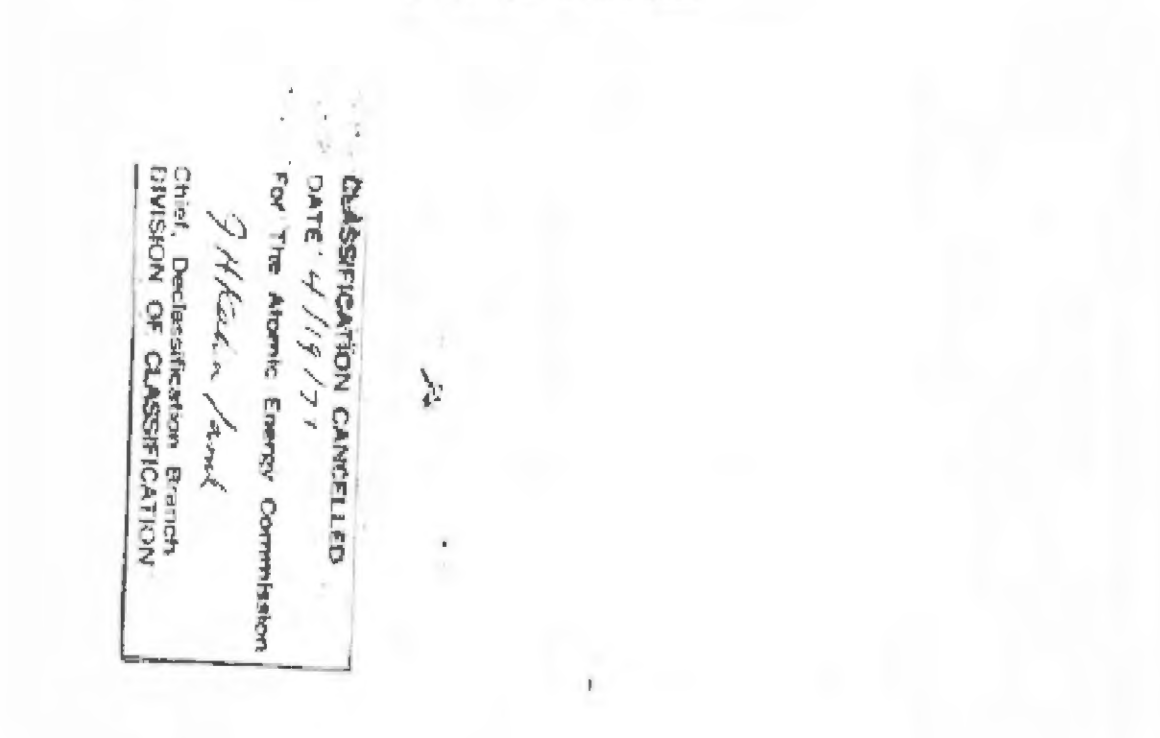
APPENDIX A 127

TYPICAL DISTRIBUTION SUBSTATION



APPENDIX A 128

115 KV TRANSMISSION LINE



APPENDIX A 129

15.8 KV TRANSMISSION LINE

APPENDIX A 130

WHITE BLUFFS-GOLD CREEK ROAD

APPENDIX A 131

AERIAL VIEW OF RICHLAND VILLAGE

APPENDIX A 132

AERIAL VIEW OF ADMINISTRATION (700) AREA


P 8231